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Serviços de entrega de e-mails para dispositivos móveis

Segurança e privacidade

- Motivação
- Serviços disponíveis
- Características
- Comparativos
- Conclusões



Motivações

- Pressão para ativação dos serviços, por parte dos executivos das empresas
- Ausência de material comparativo
- Percepção, durante os testes, de várias possíveis fragilidades

Principais competidores



FUNAMBOL

Outros

The image shows a screenshot of a web browser with two windows open. The background window is a SOGo page with a red header and a white content area. The foreground window is a Consilient Push page with a white background and blue accents.

SOGo Page:

- Header: **SOGo**
- Section: **Description**
- Text: "SOGo is an OpenGroup application. We are the user interface on the iPhone (Thunderbolt added) application can now..."
- Section: **Here is**
- List:
 - Complete Mozilla
 - Calendar than a few liters
- Link: **→ MORE INFO**

Consilient Push Page:

- Header: **push** (with "BETA" and "consilient" subtext), **Mobile Email for Everyone.**
- Navigation: **Home** (orange), **Features** (orange), **Share** (blue), **Extras** (blue), **Help** (blue)
- Section: **Free Push Email on your mobile phone**
- Text: "With Consilient Push, you don't need an expensive new device or phone for mobile email. All you need is your regular mobile phone and a data plan from your mobile operator." (Accompanied by an envelope icon)
- Section: **MP3s and Personal Themes**
- Text: "Set your favorite MP3 for new email notification or choose your own personal picture as a backdrop for your email accounts." (Accompanied by a music note icon)
- Section: **All popular email accounts**
- Text: "Gmail, Yahoo!, Hotmail and any POP3 or IMAP account (Like your ISP email)" (Accompanied by Gmail, msn, and YAHOO! logos)
- Section: **5 email accounts on One Phone**
- Text: "Now you can get email from as many as 5 of your favorite email accounts. All you need to do is decide which ones! (Please note: Windows Mobile & BlackBerry devices **do not** support multiple accounts at this time.)" (Accompanied by a phone icon with a red circle containing the number 5)
- Section: **Customize your email and Lock down your Phone if lost**
- Text: "Create your own email signature. Also if the unthinkable happens and you lose your phone, you can lock it down and keep your email from being read." (Accompanied by a padlock icon)

Browser Details:

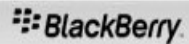
- Top Browser: **http://www.seven.com/**
- Bottom Browser: **http://www.consilient.com/features/**
- System Tray: Includes "Done", "Adblock", "1962", "Now: Mostly Cloudy, 14° C", "Tue: 30° C", "Wed: 28° C", and weather icons.

Características básicas

- **E-mail instantâneo**
- Navegação web
- Sincronia de agenda/calendário/notas
- Extras (serviços de mensagens instantâneas)

Características básicas

[Help](#) | [Logout](#)



Services

► E-mail Accounts

Settings

Change Handheld

Language

Password

Service Books

E-mail Accounts

Manage the accounts you are using with your BlackBerry handheld.

Valid E-mail Account

✓ [Redacted]

✓ [Redacted]

Edit Filters Delete



Existing E-mail Account

Setup an existing work or personal e-mail account for use with your BlackBerry handheld.

Setup Account

BlackBerry Address

The e-mail address for your BlackBerry is [Redacted]

Características básicas

Configurações POP/IMAP

Configurações do Conexão de email de Internet

(*) são necessárias

Endereço de email:

Senha:

Nome de usuário:

Endereço do servidor de email:

Testar configurações...

Tipo de servidor:

POP IMAP

Usar porta não padrão:

Endereço de resposta:

Deixar mensagens no servidor:

Sincronizar email com Exchange / Domino:

Ícone a mostrar na Caixa de entrada do site da Web:

Status:

07-03-2007 16:24 0 mensagens descarregadas.

Características básicas

The screenshot displays the Funambol Administration Tool interface. The main window shows a tree view on the left with 'email' selected, and a 'Public Mail Servers' table in the center. A dialog box titled 'Adding user account: insert account data' is open, showing 'User Account Details (nelson)'. A red circle highlights the 'Login' field, which contains 'nmurilo'. The 'Password' and 'Confirm password' fields are masked with asterisks. The 'E-mail address' field contains 'nmurilo@gmail.com'. The 'Listener Id' is '1'. The 'Active' checkbox is checked. The 'Push' checkbox is also checked. The 'Refresh time (min)' is '5'. The 'Max email number' is '20'. The 'Max IMAP emails' is '10'. The 'Mail server' is 'custom'. The 'Server product' is 'Other'. The 'Protocol' is 'imap'. The 'Outgoing server' and 'Incoming server' fields are empty. The 'Inbox folder name' is 'Inbox'. The 'Outbox folder name' is 'Outbox'. The 'Sent folder name', 'Draft folder name', and 'Trash folder name' are empty. The 'Auth' checkbox is unchecked. The 'Save' and 'Close' buttons are at the bottom of the dialog.

Funambol Administration Tool v. 6.0.6

email - FunambolEmailConnector

Public Mail Servers

Server description Start with [dropdown] [Reset] [Search]

Description	Outgoing server	port	Incoming server	port
GMail	smtp.gmail.com	465	pop.gmail.com	995
Yahoo	smtp.mail.yahoo.c...	587	pop.mail.yahoo.com	110
AOL	smtp.aol.com	25	imap.aol.com	143

[Add] [Edit] [Delete]

Adding user account: insert account data

User Account Details (nelson)

Login: nmurilo

Password: *****

Confirm password: *****

E-mail address: nmurilo@gmail.com

Listener Id: 1

Active:

Push:

Refresh time (min): 5

Max email number: 20

Max IMAP emails: 10

Mail server: custom

Description: custom

Server product: Other

Protocol: imap

Outgoing server: [] Port: 0 Auth:

Incoming server: [] Port: 0

SSL Outgoing:

SSL Incoming:

Key store filename: []

Key store passphrase: []

Soft-Delete on server:

Inbox folder name: Inbox

Outbox folder name: Outbox

Sent folder name: Sent

Draft folder name: Drafts

Trash folder name: Trash

[Save] [Close]

Output - Messages

23 Jul 2007 17:12 [INFO] Connect

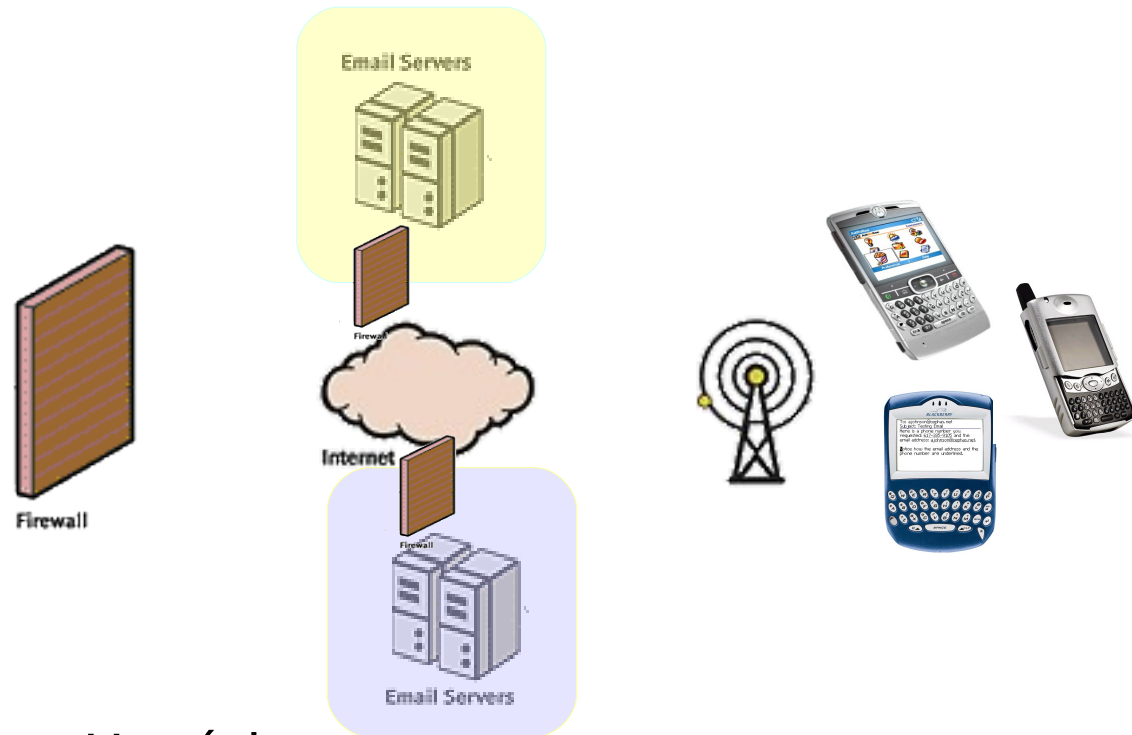
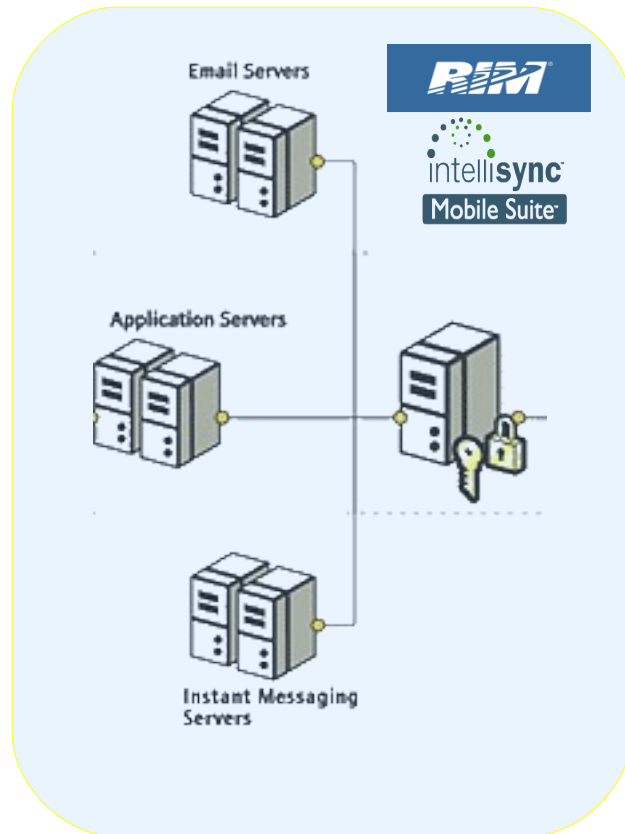
23 Jul 2007 17:12 [INFO] Checkin

23 Jul 2007 17:12 [INFO] If a ne

23 Jul 2007 17:12 [INFO] connect

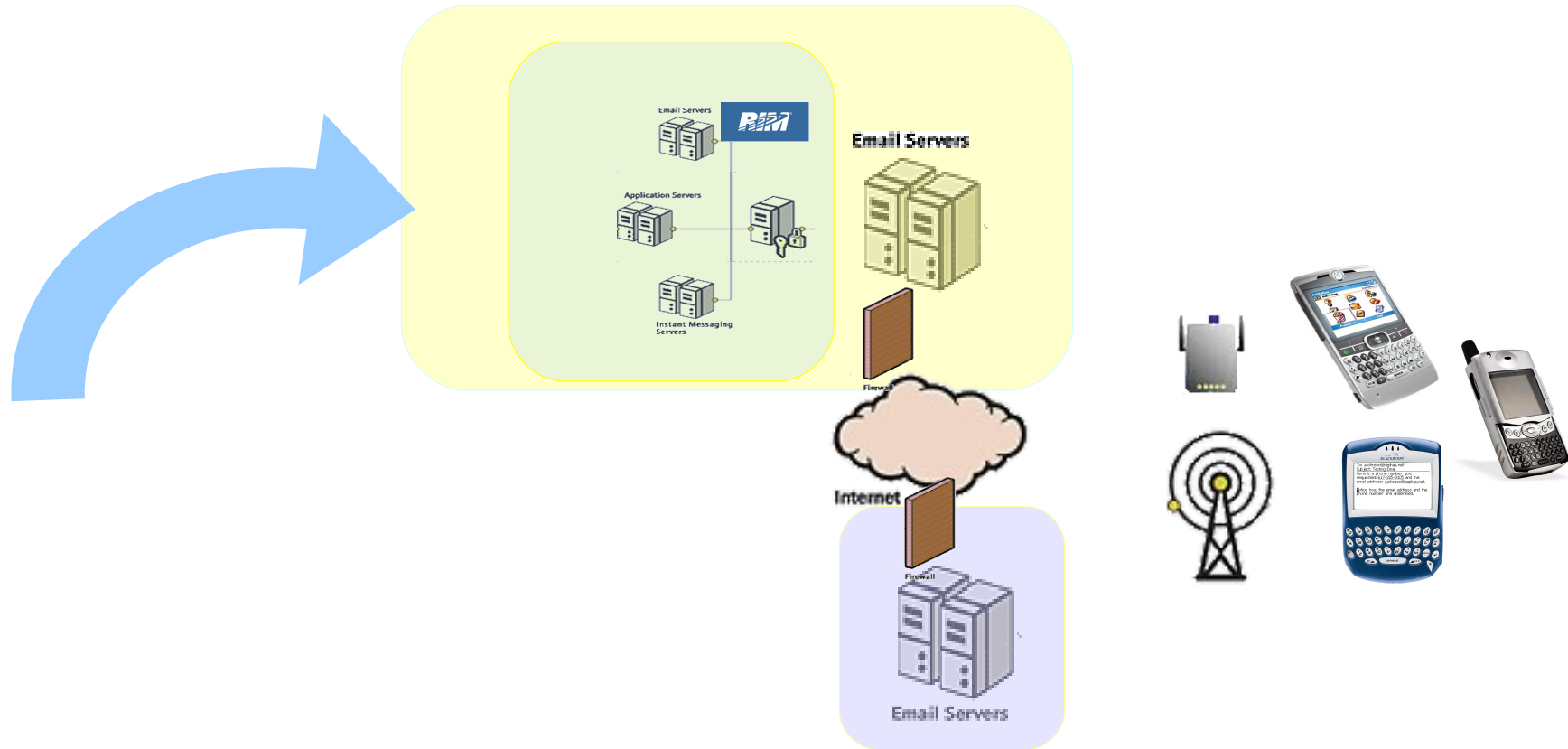
23 Jul 2007 17:12 [INFO] Found 4

Componentes



- Usuário
- Operadora (celular/wi-fi)
- Prestador de serviço
- Serviços de correio eletrônico

BES – Blackberry Enterprise Server



- Usuário
- Operadora (celular/wi-fi)
- Prestador de serviço
- Serviços de correio eletrônico

Problemas de disponibilidade

RIM se desculpa com clientes e justifica falha na rede do BlackBerry

Por Martyn Williams, para o IDG Now!*
Publicada em 20 de abril de 2007 às 10h44

 [E-mail](#)  [Imprima](#)  [Comente](#)  [Erros?](#)  [del.icio.us](#)  [Digg](#) 

Tóquio - Introdução de uma rotina de software levou ao problema, que foi agravado por mal desempenho do sistema de back-up, diz empresa.

A implementação de uma nova rotina de software causou uma falha de horas no sistema de mensagens do BlackBerry na América do Norte no início desta semana, disse a Research in Motion.

Esta é a primeira explicação da empresa para o "apagão" da rede, que começou no final da terça-feira (17/04) e continuou na quarta-feira de manhã. A empresa explicou que a razão para o problema foi a introdução de uma rotina de software que deveria otimizar o sistema de memória cache levou aos problemas.

Segundo a empresa, não eram previstos impactos a infra-estrutura de operação em tempo real do BlackBerry, mas os testes prévios com a rotina do sistema se provaram insuficientes.

O problema foi agravado pelo fraco desempenho do sistema de back-up da companhia. "Embora o sistema de back-up e o processo de redundância tenham sido repetidamente testados com sucesso anteriormente, a redundância não atendeu as expectativas da RIM nesta situação e portanto causou maior atraso na restauração do serviço e no



Problemas de disponibilidade (cont.)

 <http://www.networkworld.com/community/node/24942>

What, Again? Another BlackBerry Outage Underway

Submitted by [Craig Mathias](#) on Mon, 02/11/2008 - 8:28pm.

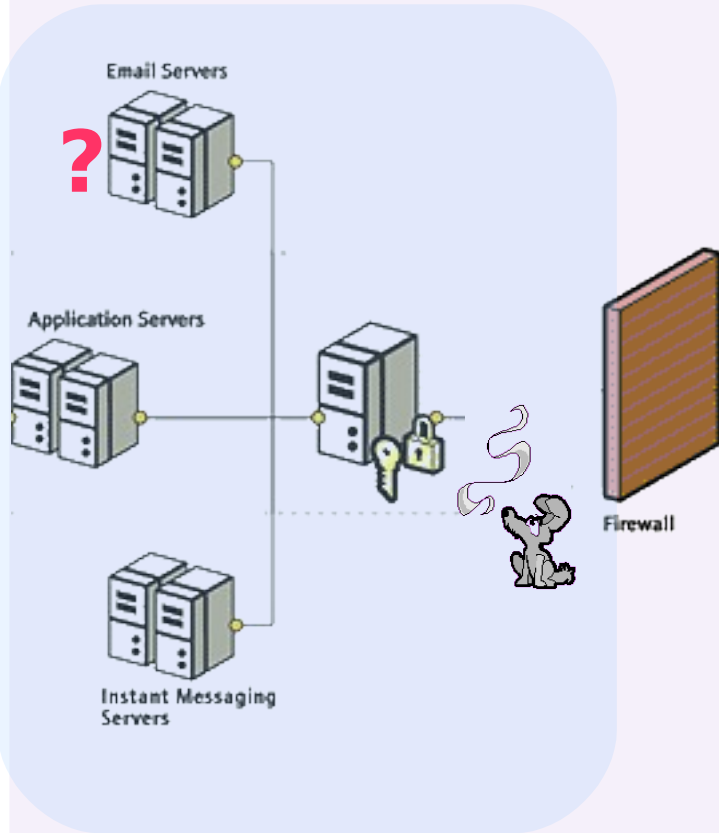
As I write this, the major new organizations are reporting yet another BlackBerry service outage. The last one, about a year ago, should have served as a powerful warning that we can become too dependent upon systems that have inherent single points of failure. Such is not a good strategy, either for us users or our vendors. As wireless systems of all forms become ever more mission-critical, a fault-tolerant/redundant/etc. architecture and implementation become ever more important - again, both for us and our suppliers. You can see *Network World's* article on the current BlackBerry outage [here](#).

One way to deal with this problem is to make sure we are not dependent upon any single element in the wireless value chain. Sure, we'd like to carry only one mobile subscriber unit, but why not make it two, even if the second is a bit crippled? That's what I do - a wireless PDA (a Motorola Q) and a simple flip phone with "Web" access. Both of my devices are on a single carrier's network, but that could be fixed. E-mail should be stored and managed on a separate e-mail service, and forwarded, if necessary, to the wireless e-mail service, like BlackBerry. I use 100% Web-based mail on all devices, which means that I can get to e-mail through any browser (OK, most browsers), even a stationary PC. The e-mail service itself is still a single point of failure, however; I'm working on that one, but a fundamental re-architecting of the whole concept of e-mail may be required to really solve this problem. But, in the interim, at least there



Aspectos de segurança

Confidencialidade

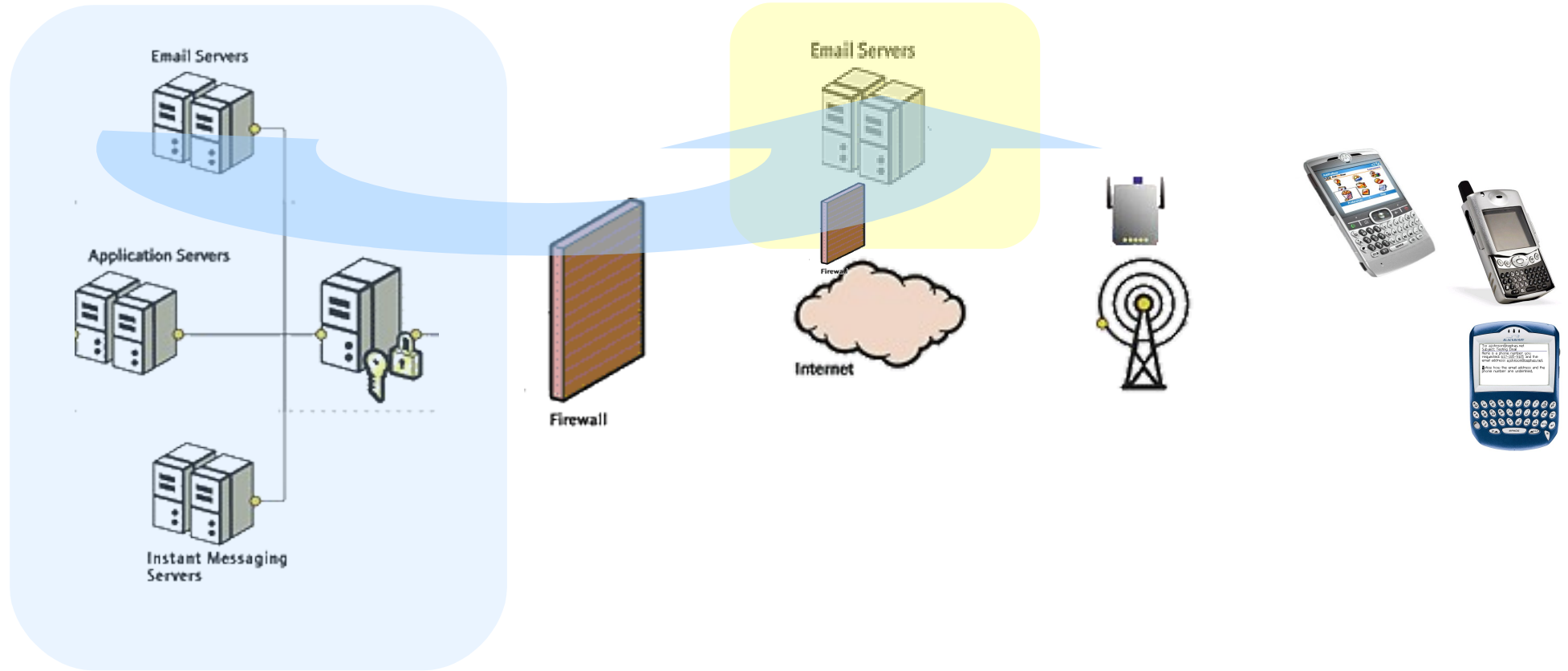


? backup? Armazenamento?



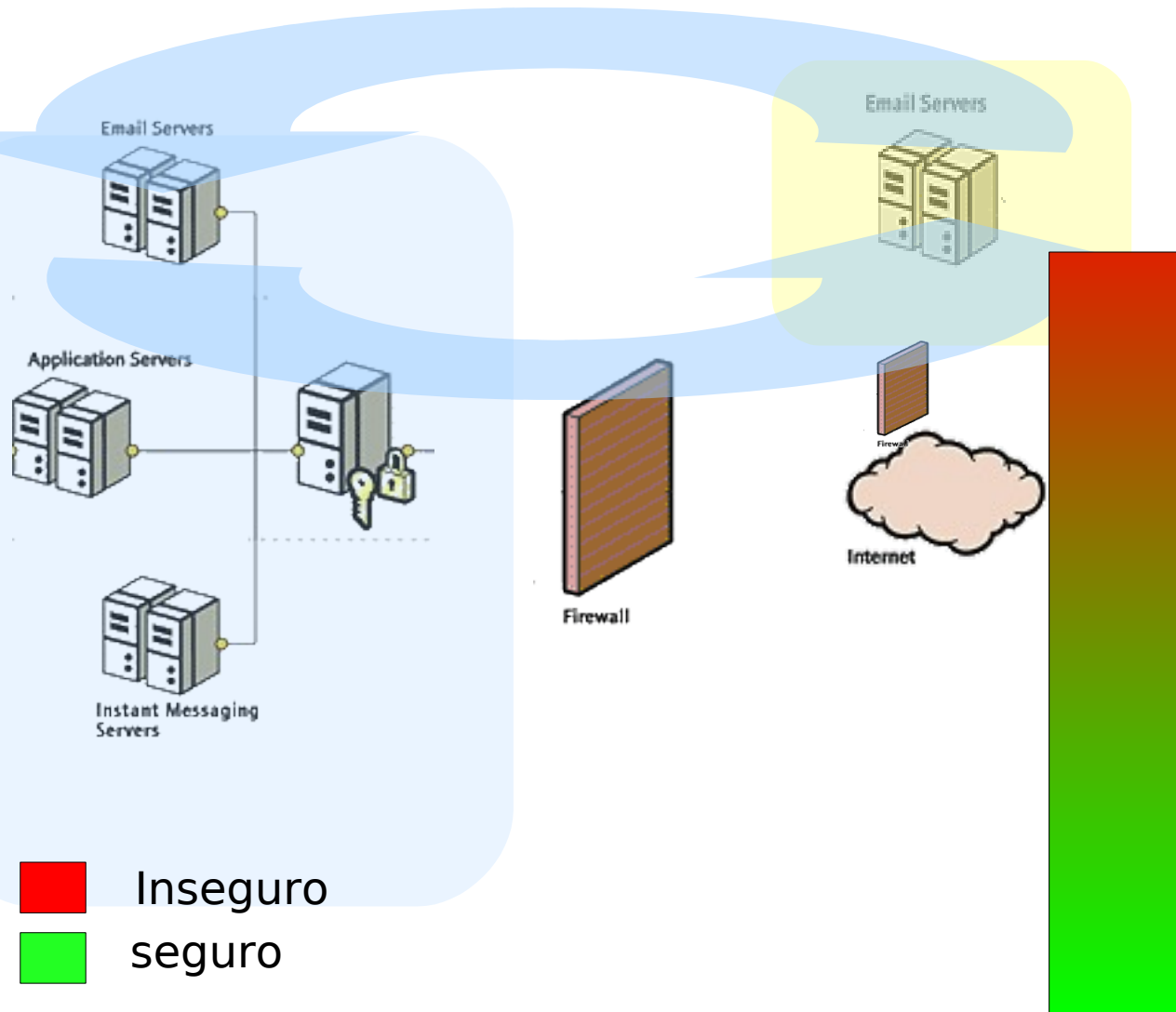
Aspectos de segurança

Integridade



Aspectos de segurança

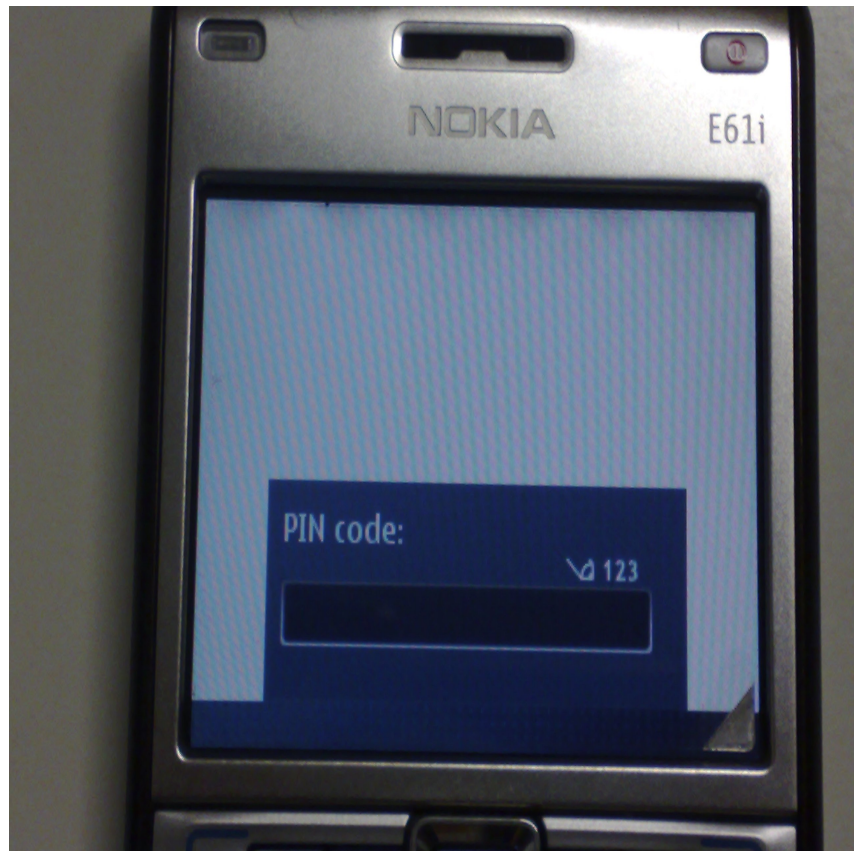
Integridade



- SMTP Relay aberto
- POP3/IMAP
- SMTP após POP3
- Relay filtrado por IP
- Protocolos com TLS

Aspectos de segurança

- Operadoras distribuem chip com PIM padrão
- Senhas de acesso armazenadas no dispositivo



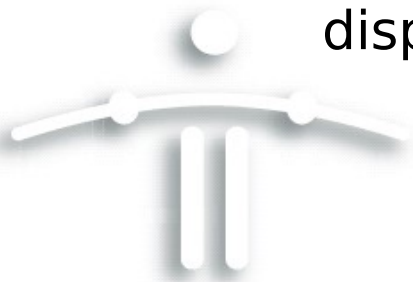
Conclusões

- Não existem recursos nativos de antivírus ou antispam, nos serviços de e-mail ou navegação
- Bluetooth é um recurso comum em aparelhos tipo smarphone, ataques de acesso e envio de informações não autorizadas são, teoricamente, possíveis.
- A implementação da criptografia é, em muitos casos, proprietária. Então não se pode garantir que não existem aberturas, intencionais ou não, que permitam entender as informações em trânsito.

Funambol



- Protocolo padrão SyncML (nativo em smartphones)
- Sincronia calendário, agenda e notas
- Recurso nativo de *mailpush*
- **Manutenção remota de dispositivos**
- Clientes em java: Maior número de dispositivos suportados



FUNAMBOL

• **Código aberto**

Funambol

Compressão de tráfego capturada



```
# tshark -V -r mail.dump
```

```
Hypertext Transfer Protocol
```

```
HTTP/1.1 200 OK\r\n
```

```
Request Version: HTTP/1.1
```

```
Response Code: 200
```

```
Set-Cookie: \r\n
```

```
Accept-Encoding: gzip,deflate\r\n
```

```
Uncompressed-Content-Length: 14494\r\n
```

```
Content-Encoding: gzip\r\n
```

```
Content-Type: application/vnd.syncml+xml\r\n
```

```
Content-Length: 4274
```

```
Date: Tue, 24 Jul 2007 21:56:49 GMT\r\n
```

```
\r\n
```

```
Content-encoded entity body (gzip): 4274 bytes -> 14494 bytes
```

```
Media Type
```

Funambol

```
# file 192.168.011.002.08080-192.168.011.050.60006
```

```
192.168.011.002.08080-192.168.011.050.60006: data
```

```
# hexdump 192.168.011.002.08080-192.168.011.050.60006 | grep  
8b1f
```

```
00000f0 3a36 3934 4720 544d 0a0d 0a0d 8b1f 0008
```

```
0001510 4720 544d 0a0d 0a0d 8b1f 0008 0000 0000
```

```
0001cd0 0a0d 0a0d 8b1f 0008 0000 0000 0000 02b5
```

```
# bc
```

```
ibase=16
```

```
F0+C
```

```
050
```

```
# dd if=192.168.011.002.08080-192.168.011.050.60006 of=data.gz
```

```
\
```

```
bs=c skip=252c
```

```
# file data.gz
```

```
data.gz: gzip compressed data, was "data", from Unix, last modified: Tue Jul 24  
21:54:04 2007
```

Funambol

```
$ zcat data.gz
```

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<SyncML>
```

```
<SyncHdr>
```

```
<VerDTD>1.2</VerDTD>
```

```
<VerProto>SyncML/1.2</VerProto>
```

```
<SessionID>11
```

```
<MsgID>3</Ms
```

```
<Target>
```

```
<LocURI>fjm-1
```

```
</Target>
```

```
[...]
```

```
by mx.google.c
```

```
3si8908571wrh
```

```
Tue, 24 Jul 200
```

```
Message-ID:
```

```
&lt;89c3c95e-3509-4375-9207-590a74f80150@permission
```

```
r1.com.br>
```

```
Date: Tue, 24 Jul 2007 17:20:44 GMT
```

```
From: Valor OnLine &lt;newsletter@valoronline.com.br>
```

```
Reply-To: newsletter@valoronline.com.br
```

```
To: xxxxxx@gmail.com
```

```
Subject: Valor - Newsletter da Tarde
```

```
MIME-Version: 1.0
```

```
Content-Type: text/plain; charset=UTF-8
```



Use criptografia!

Blackberry e a Segurança Nacional

http://www.naopod.com.br/files/blackberry_seguranca_nacional.pdf

Breve !

<http://www.beholderwireless.org>

