



er ingen gåde.....

29. august 2012 @ ANUG
Mogens Heller Grabe

Agenda

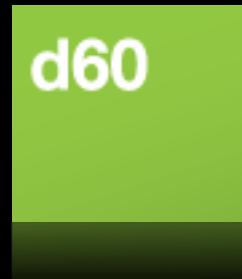
- Hvad er dit problem?
- Hvordan kan det løses?
- Rebus

Slides

+ snak

+ kode

Mogens Heller Grabe



**mhg@d60.dk
@mookid8000
<http://mookid.dk/oncode>**

Hvad er dit problem?

For eksempel:

```
public class Køb : FinansielTransaktion
{
    public void Bogfør()
    {
        // .....
        foreach(var d in Pantebrev.Debitorer)
        {
            d.TilslutCprMatch();
            d.IndgåendeKreditstatus();
        }
        foreach(var k in Pantebrev.Kauti(...))
    }
}
```

Long-lived transactions...

begin tran

DoThis()

DoThat()

commit tran

begin tran

DoThis()

commit tran

begin tran

DoThat()

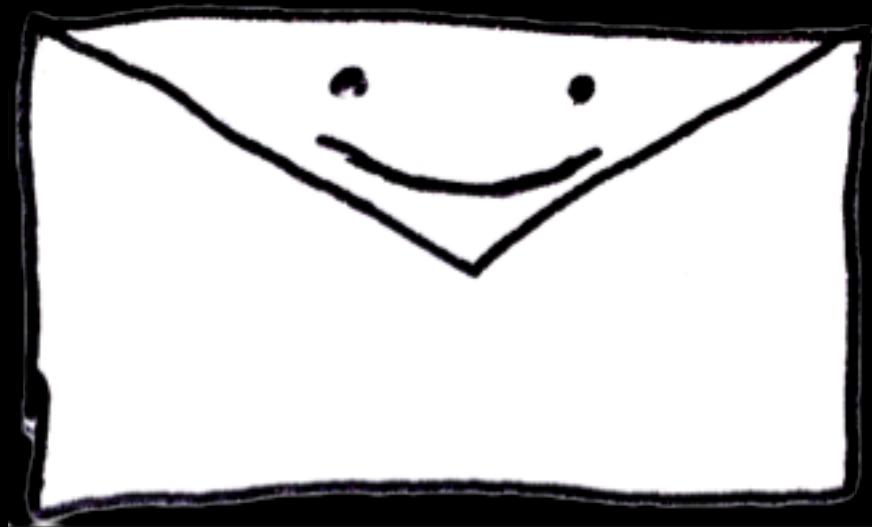
commit tran



?

Async Reliable Messaging

Messaging





Reliable



Async





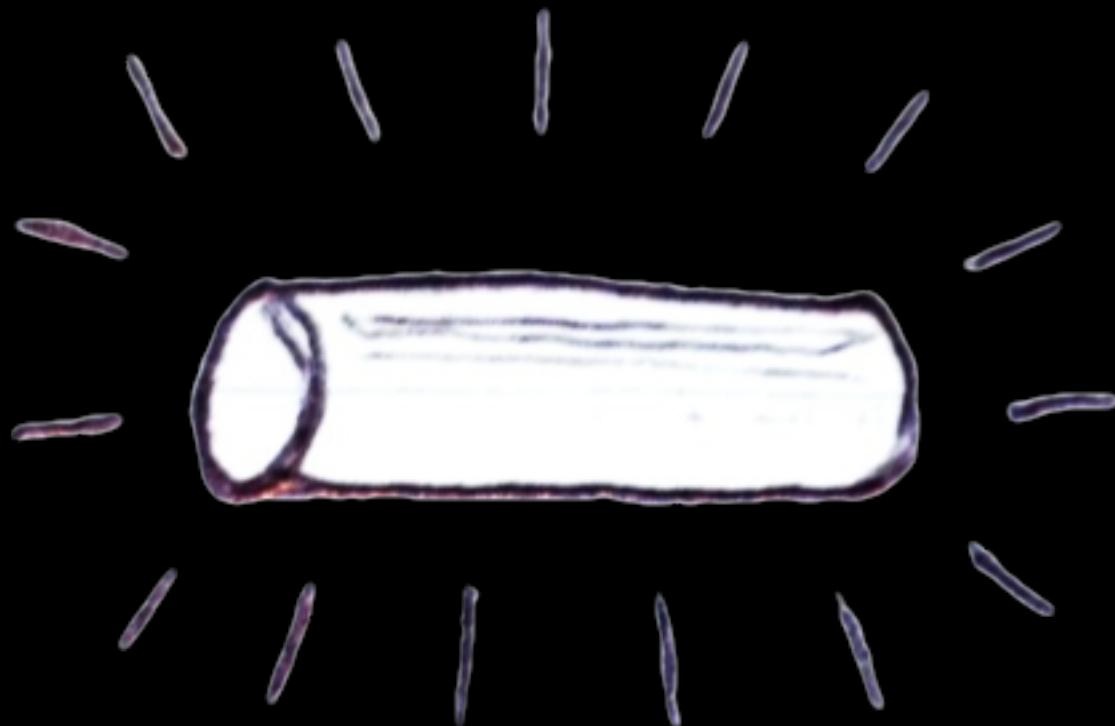
Windows FTW!!!!11

Hvad er så det der
“service bus” for noget?

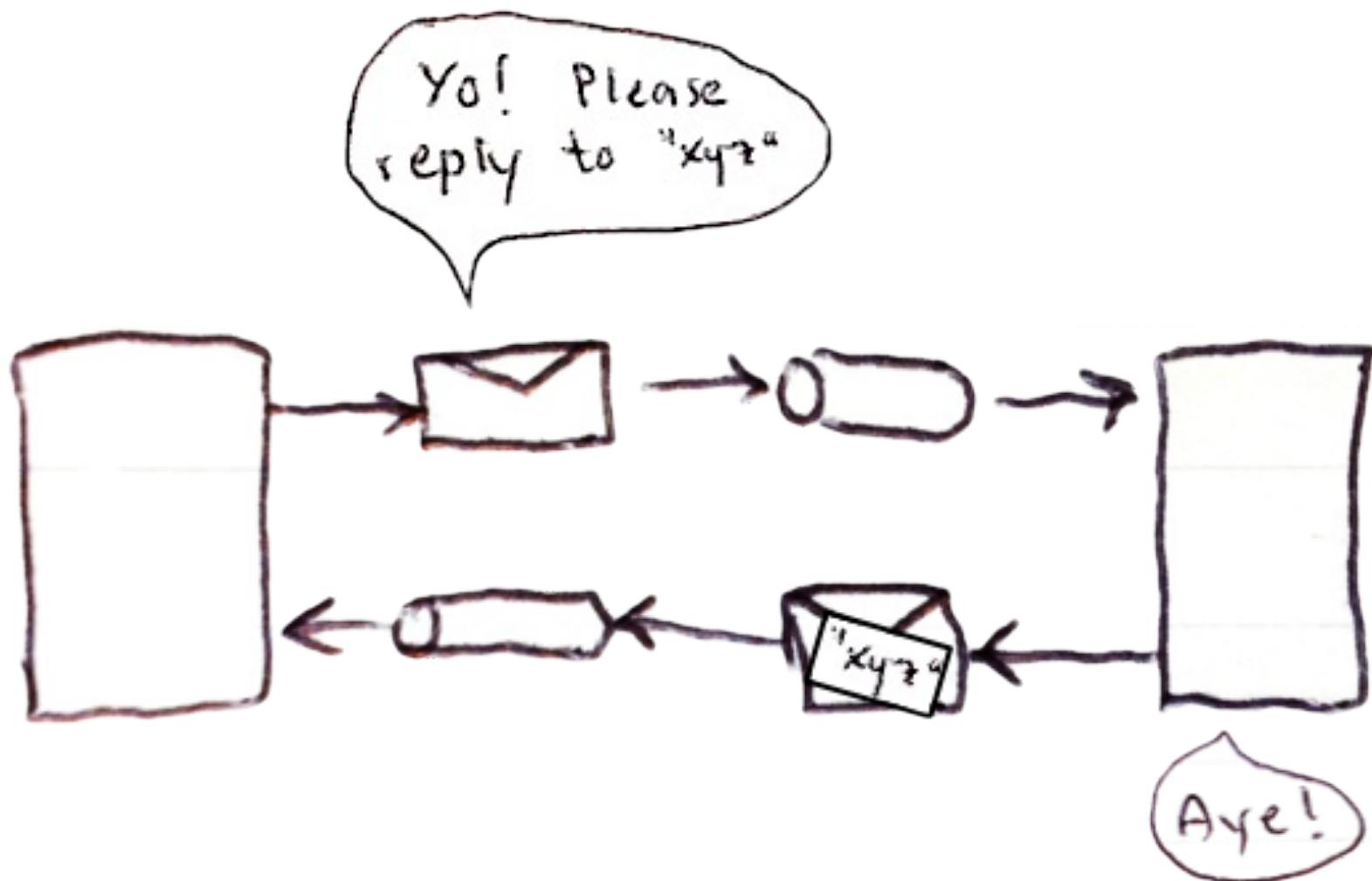




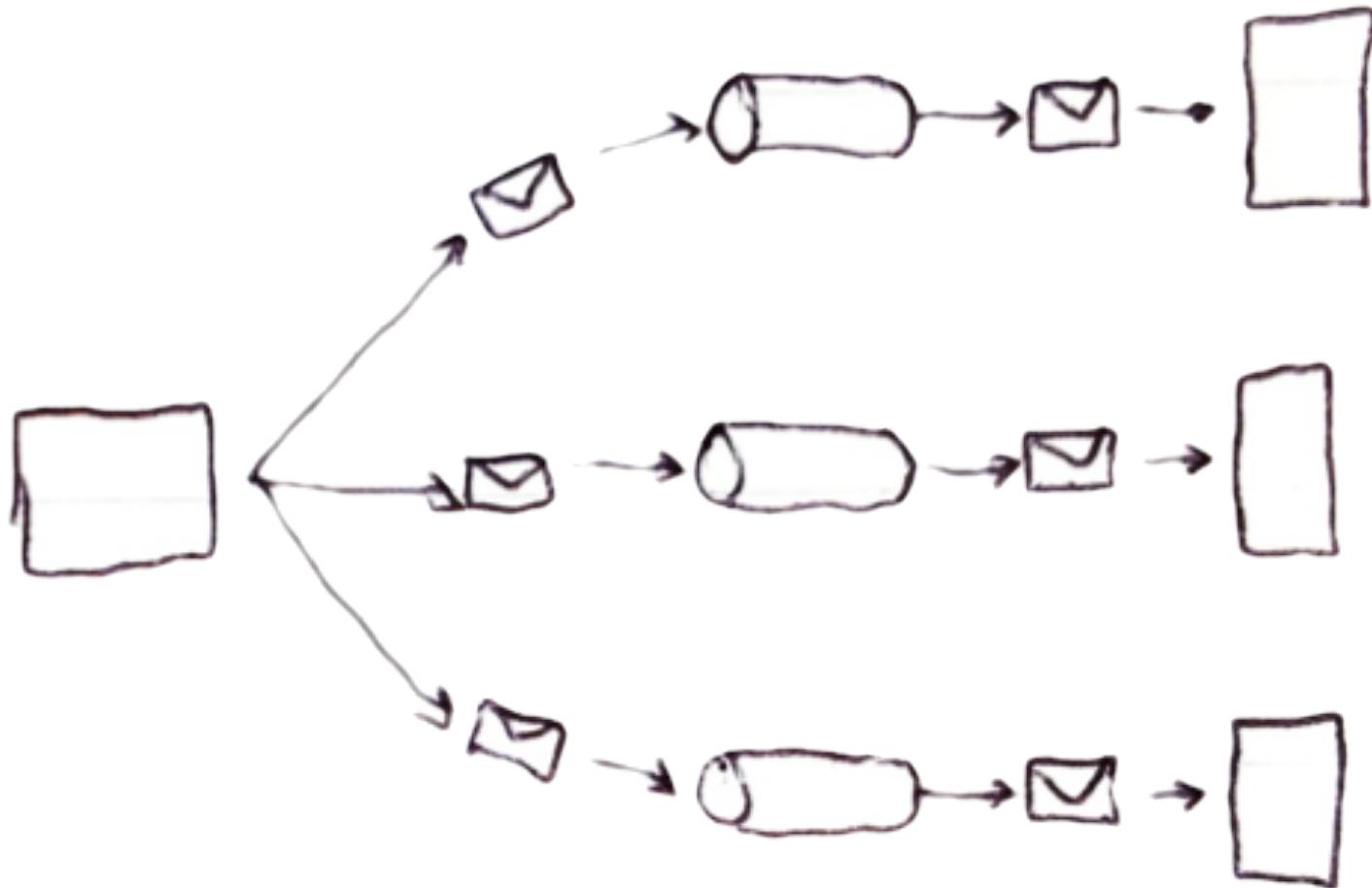
Køkultur



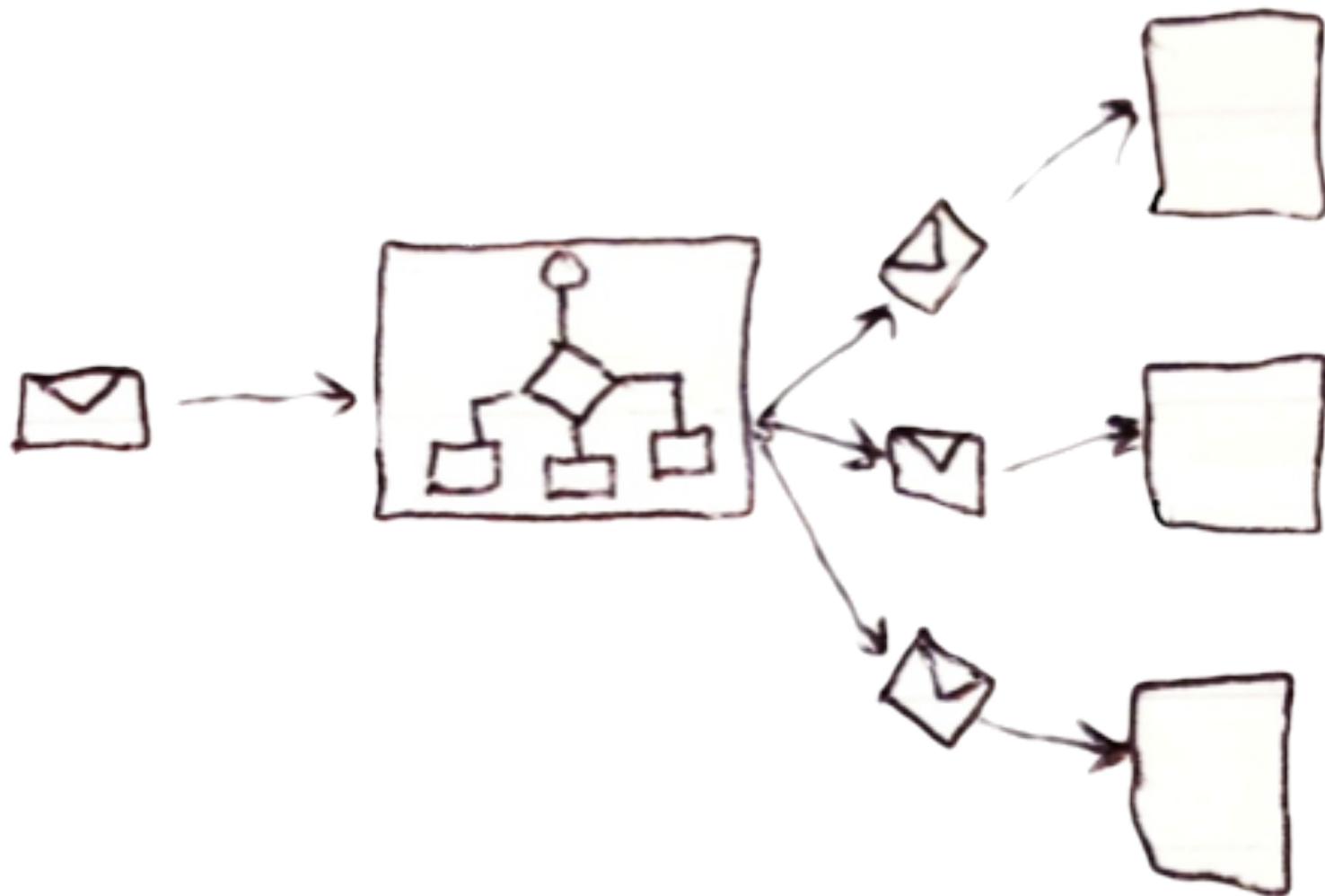
Request/reply



Publish/subscribe



Process manager





NSC Bus

MassTransit Rhino Service Bus



Rebus

- **Første mål:**
 - Request/reply + publish/subscribe
 - Lavet efter NServiceBus-modellen
 - Bedre fejlbeskeder

~ 400 linjer!!



**Simpel og intuitiv
konfigurationshistorie**

Få, velvalgte features

Ingen doodleware

**Rebus Core kun afhængig
af .NET 4 BCL**

**Integration m. 3.partslibs via
små, fokuserede assemblies**

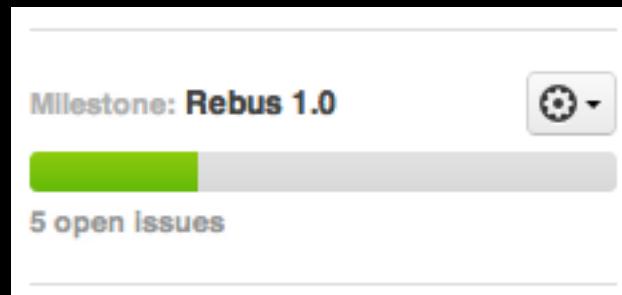
De bedste fejlbeskeder

Lav friktion

Rebus

- Version 0.19.6
- Ikke længere ~ 400 linjer

=> 1.0 !

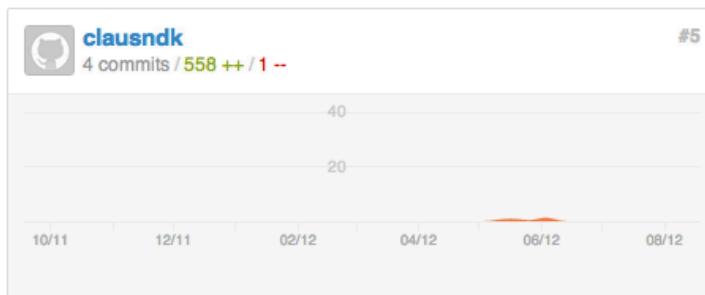
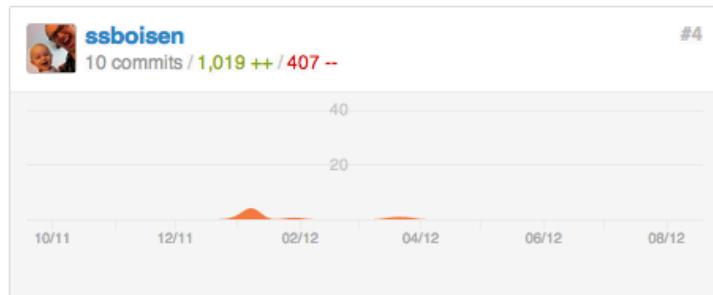


Rebus

- Apache License v. 2
- Kode på GitHub:

<http://github.com/mookid8000/Rebus>

Contributors



Rebus

- **install-package rebus –pre**
- **evt. via**
 - **rebus.castle.windsor**
 - **rebus.structuremap**
 - **rebus.mongodb**
 - **rebus.ravendb**
 - **rebus.log4net**
 - (...)

Eksempel

- Lillebitte kommunikation
mlm. 2 processer

Message

```
public class DoStuff
{
    public DoStuff(string whatToDo)
    {
        WhatToDo = whatToDo;
    }

    public string WhatToDo { get; private set; }
}
```

Handler

```
public class DoStuffHandler  
    : IHandleMessages<DoStuff>  
{  
    public void Handle(DoStuff message)  
    {  
        // go ahead and do the stuff...  
    }  
}
```

Konfiguration

```
new RebusBus(....whoa!!)
```

Konfiguration

```
var a = new FaveContainerAdapter(container);  
  
Configure.With(a)  
    .Logging(l => l.Log4Net())  
    .Transport(t => t.UseMsmq("input",  
                                "error"))  
    .DetermineDestination(d => d.(....))  
  
.CreateBus()  
.Start();
```

Konfiguration

```
var busForEverydayUse =  
    container.Resolve<IBus>();
```

```
var busForCertainAdvancedTasks =  
    container.Resolve<IAvancedBus>();
```

```
var messageContext =  
    container.Resolve<IMessageContext>()
```

Den rigtige måde

```
// lav konfigurationstryl med  
// Configure.With(containerAdapter) . . .  
// og så:  
  
public class HomeController : Controller  
{  
    public HomeController(IBus bus) { . . . }  
}  
  
// . . . osv!
```

Eksempel

- Et vaskeægte
(kunstigt)
integrationsscenario**

EAT SOAP



SHIT BUBBLES

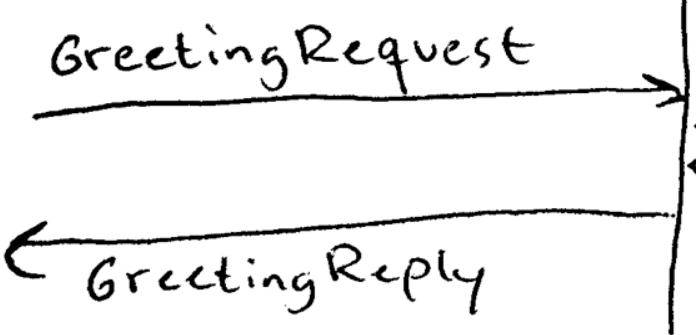
memegenerator.net



NARWHALER.COM



Unreliable_Integration



Integration Job

Unreliable_Integration

Greeting Request

Greeting Reply



Integration Job

Unreliable_Integration

Greeting Request

Greeting Reply



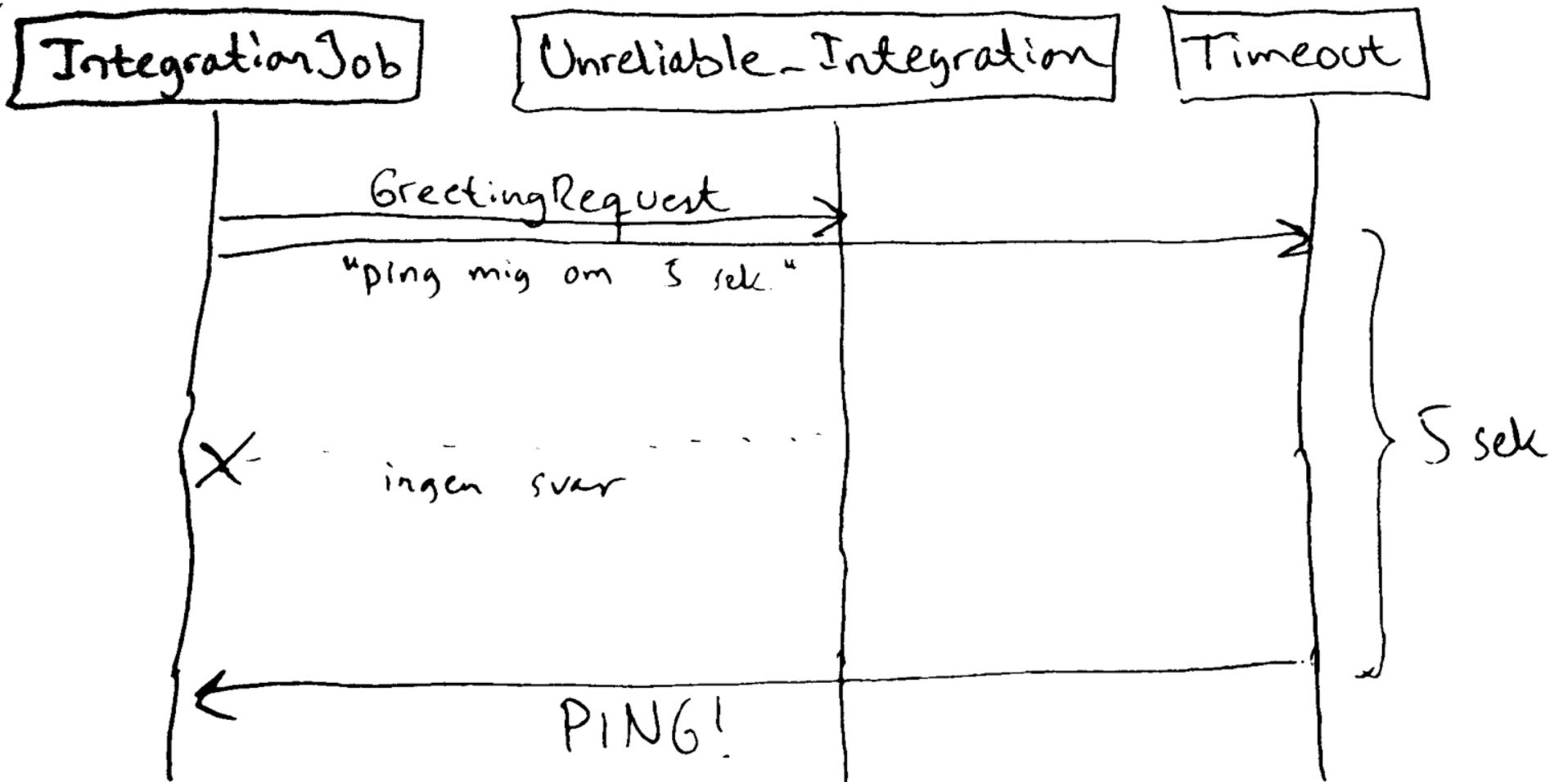
Integration Job

Unreliable_Integration

Greeting Request

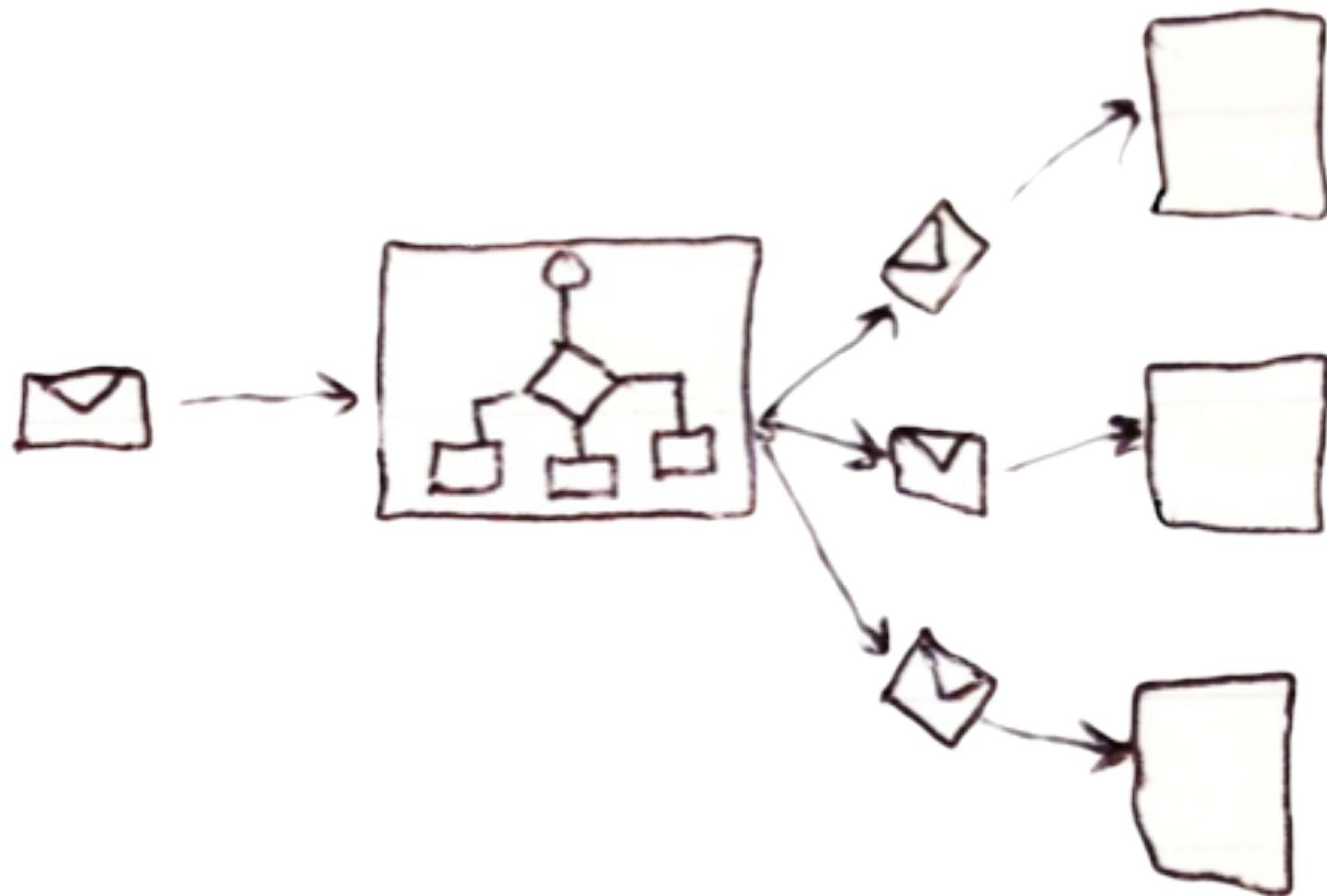
X - - - No reply? - - - -





Sagde han “saga”?

Process manager



Saga

```
public class IntegrationSaga
    : Saga<IntegrationSagaData>,
IAmInitiatedBy<SomethingHappened>,
IHandleMessages<VerifyComplete>
{
    public void Handle(SomethingHappened m)
    { ... }
    public void Handle(VerifyComplete m)
    { ... }
}
```

Saga

IntegrationSaga:

```
public override void ConfigureHowToFindSaga ()  
{  
    Incoming<SomethingHappened>(s => s.Id)  
        .CorrelatesWith(d => d.IdOfEvent) ;  
  
    Incoming<VerifyComplete>(s => s.CorrId)  
        .CorrelatesWith(d => d.CorrId) ;  
}
```

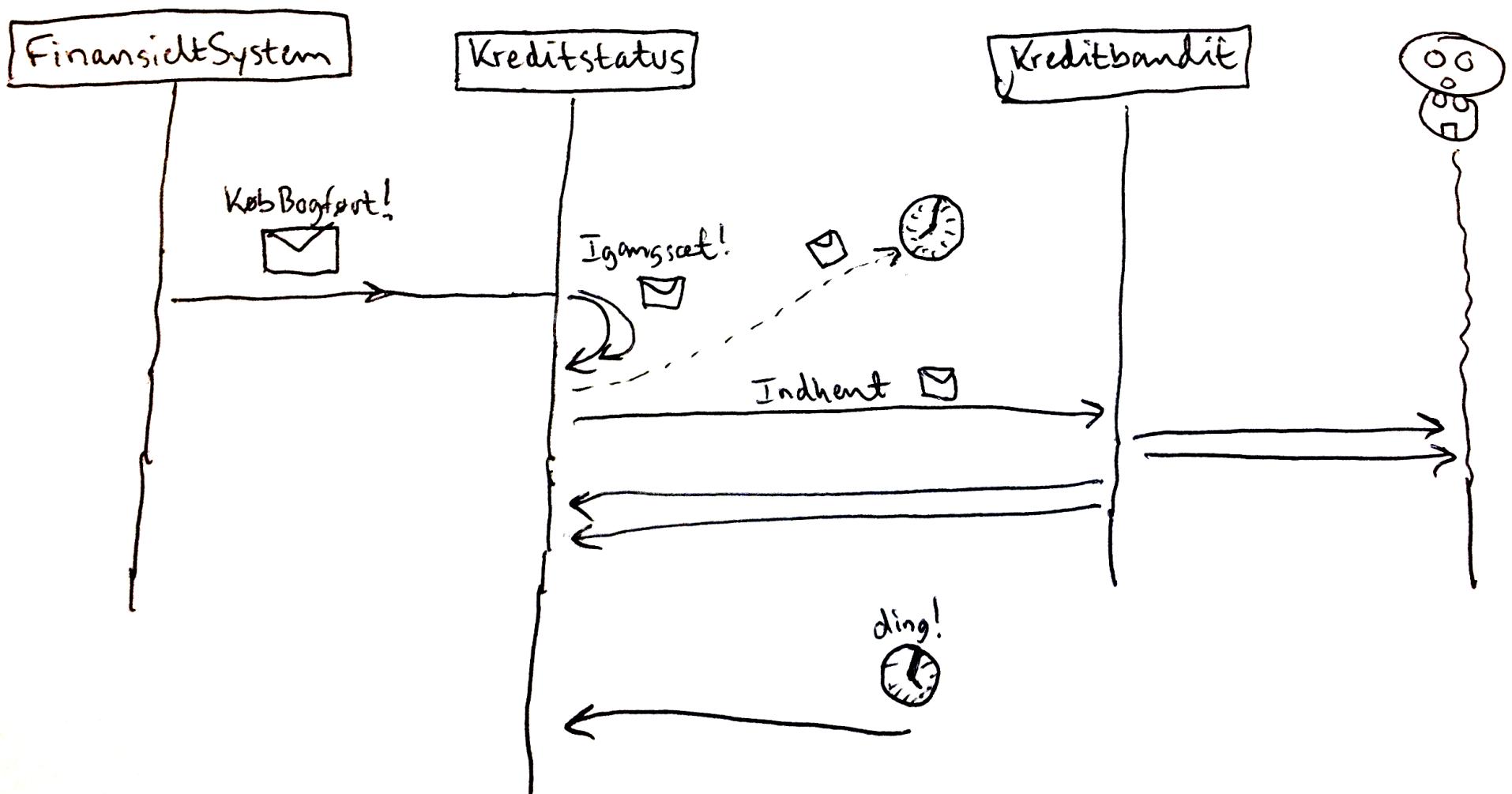
Saga

IntegrationSaga:

```
public void Handle(SomethingHappened m)
{
    bus.Send(new DoIntegrate(...));
    bus.Defer(TimeSpan.FromMinutes(2),
              new VerifyComplete(corrId));
}
```

Eksempel

- Et vaskeægte (lidt
mere ægte)
integrationsscenario**



Rebus' venner

- **containers**
 - Autofac
 - StructureMap
 - Castle Windsor
 - Unity
 - Ninject

Rebus' venner

- logging
 - Log4net
 - NLog

Rebus' venner

- **persistence**
 - SQL Server
 - MongoDB
 - RavenDB
 - XML ☺

Rebus' venner

- **transport**
 - MSMQ
 - RabbitMQ(*)
 - AzureMQ(*)

(*) umodne

Rebus' venner

- ofte inviteret til festen
 - Topshelf



Extensibility

- Grundlæggende
 - **ISendMessages**
 - **IReceiveMessages**
 - **IActivateHandlers**
 - **IDetermineDestination**
 - **ISerializeMessages**
 - **IStoreSubscriptions**
 - **IStoreSagaData**
 - **IInspectHandlerPipeline**
 - **IErrorTracker**

Extensibility

- Supplerende
 - IAdvancedBus
 - BeforeTransportMessage(bus, message)
 - AfterTransportMessage(bus, ex, message)
 - BeforeMessage(bus, message)
 - AfterMessage(bus, ex, message)
 - MessageSent(bus, dest, message)
 - PoisonMessage(bus, message)

Hvad nu?

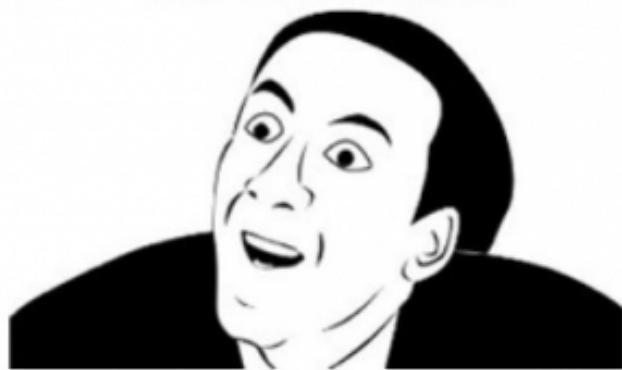
Battle-hardening
Distributør
Gateway
(+ det løse)

DANGER



**Do not hold
the wrong end
of a chainsaw**

YOU DON'T SAY?



<https://github.com/mookid8000/Rebus/wiki>

The screenshot shows a GitHub wiki page for the 'Rebus' repository, specifically the 'mookid8000 / Rebus' branch. The page title is 'Home'. At the top, there's a navigation bar with links for 'Explore', 'Gist', 'Blog', and 'Help'. On the right, there are icons for notifications (1084), messages (0), and other GitHub features. Below the navigation, there are tabs for 'Code', 'Network', 'Pull Requests (0)', 'Issues (25)', 'Wiki' (which is currently selected), 'Graphs', and 'Admin'. Under the 'Wiki' tab, there are links for 'Home', 'Pages', 'Wiki History', and 'Git Access'. To the right of these links are buttons for 'New Page', 'Edit Page', and 'Page History'. The main content area features a large, stylized blue bus with the word 'REBUS' written on its side. Below the bus, the text 'Welcome dear friend!' is displayed in bold black font. A paragraph of text follows, stating: 'Welcome to the official Rebus documentation wiki! In here, you will find a few snippets and some words about Rebus. If you haven't already done it, you might want to read the [introduction](#)'. Finally, a section titled 'Getting started' is shown, with a sub-section 'Requirements' and a note about Rebus dependencies.

PUBLIC mookid8000 / Rebus

github

Search... Explore Gist Blog Help mookid8000

PUBLIC mookid8000 / Rebus

Code Network Pull Requests 0 Issues 25 Wiki Graphs Admin

Home Pages Wiki History Git Access

New Page Edit Page Page History

Home

REBUS

Welcome dear friend!

Welcome to the official Rebus documentation wiki! In here, you will find a few snippets and some words about Rebus. If you haven't already done it, you might want to read the [introduction](#).

Getting started

Requirements

Rebus depends on .NET 4 only. Everything that is feasible to implement with the BCL only is included in Rebus' core DLL: `Rebus.dll` - that means MSMQ, SQL Server persistence, and more is in the DLL. Integration with other stuff can be achieved with various integration DLLs. Rebus will probably only work in Windows environments.

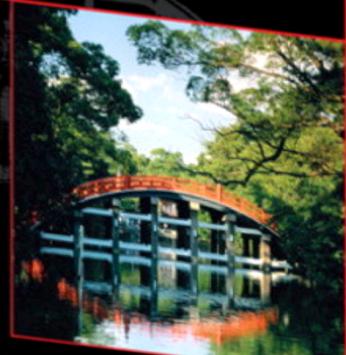
The Addison-Wesley Signature Series

ENTERPRISE INTEGRATION PATTERNS

DESIGNING, BUILDING, AND
DEPLOYING MESSAGING SOLUTIONS

GREGOR HOHPE
BOBBY WOOLF

WITH CONTRIBUTIONS BY
KYLE BROWN
CONRAD F. D'CRUZ
MARTIN FOWLER
SEAN NEVILLE
MICHAEL J. RETTIG
JONATHAN SIMON



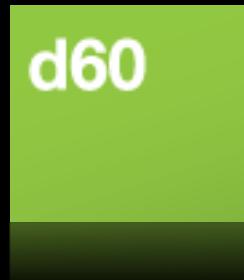
Forewords by John Crupi and Martin Fowler



MARTIN FOWLER
Signature
Book A

Tak for opmærksomheden!

Mogens Heller Grabe



**mhg@d60.dk
@mookid8000
<http://mookid.dk/oncode>**

Image credits

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- Trollface: <http://www.thebuzzmedia.com/troll-face-high-resolution/>
- Eat SOAP: <http://narwhaler.com/img/b7/h/eat-soap-b7HC4R.jpg>
- Just soap:
<http://kinlane-productions.s3.amazonaws.com/api-evangelist/soap.gif>