



RED HAT  
**FORUM**  
Europe, Middle East and Africa

# **Open Source Reference Architecture for a Financial Messaging Gateway**

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This presentation describes how **Network Gateway**, the TAS solution for secure financial messaging services, works with **Linux, JBoss, PostgreSQL** and **Apache ActiveMQ**.



**TAS Group** is the software house reference point for the Italian Banking System. It has wide footprint in Europe and Latin America.

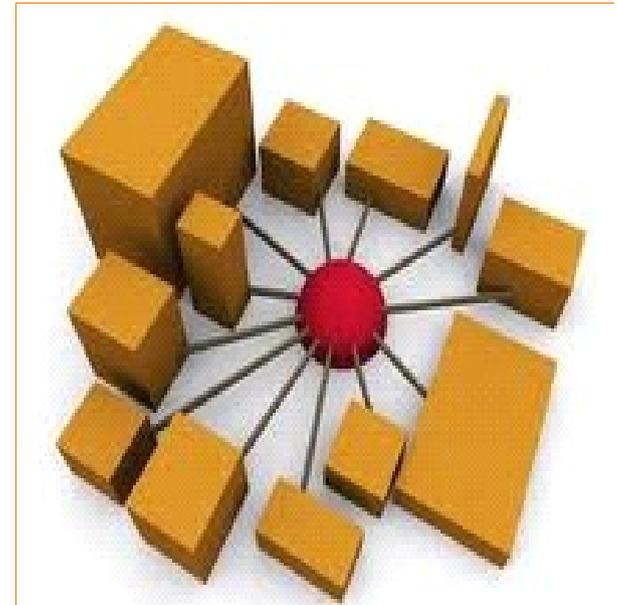
Our offering ranges from payment systems to ERP, and from electronic money products to mobile solutions.



## **TAS Group and Red Hat Italia**

started active collaboration in 2012 to identify a open source reference platform for our major banking products.

**TAS Network Gateway** was the first product to be deployed in a customer environment, based entirely on an open source platform.

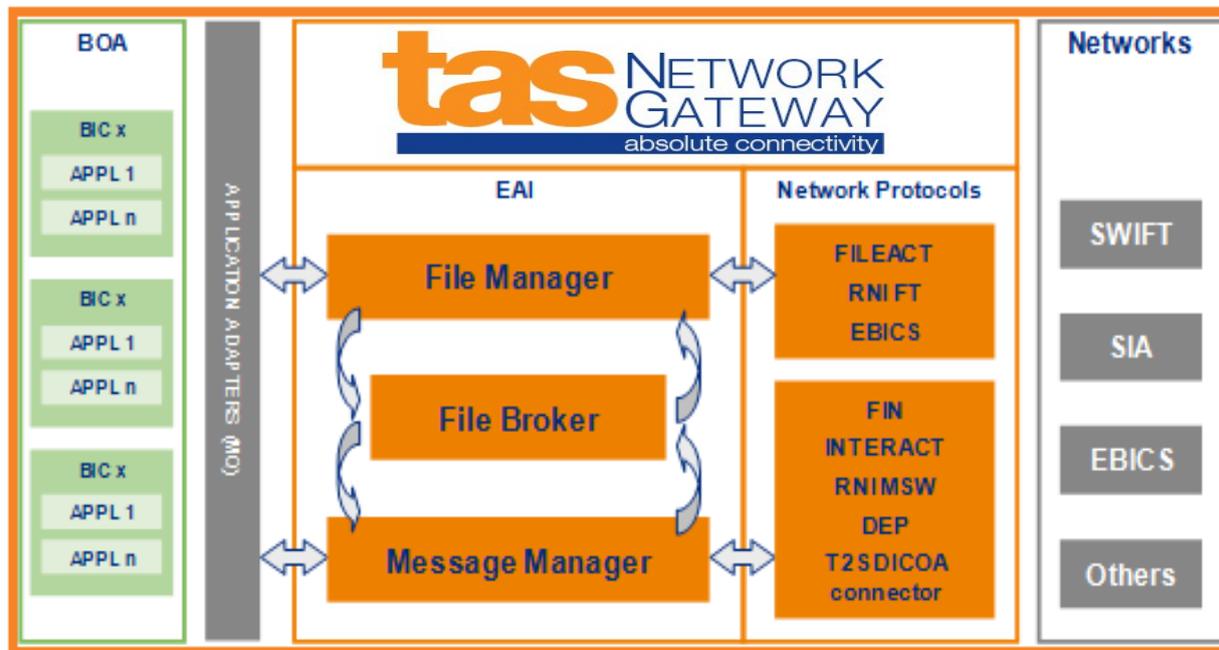


More than 50% the financial messages exchanged in Italy are managed by TAS's products

# What is TAS Network Gateway

**TAS Network Gateway** (NG) is a modular system to manage, transform and distribute FIN, InterAct and custom format messages both for financial institutions and corporates, over the secure **SWIFT** network and **Internet**.

**NG** is a full transactional system, based on **J2EE** standards with a web-based user interface. It supports all major J2EE Application Servers and DBMSs.



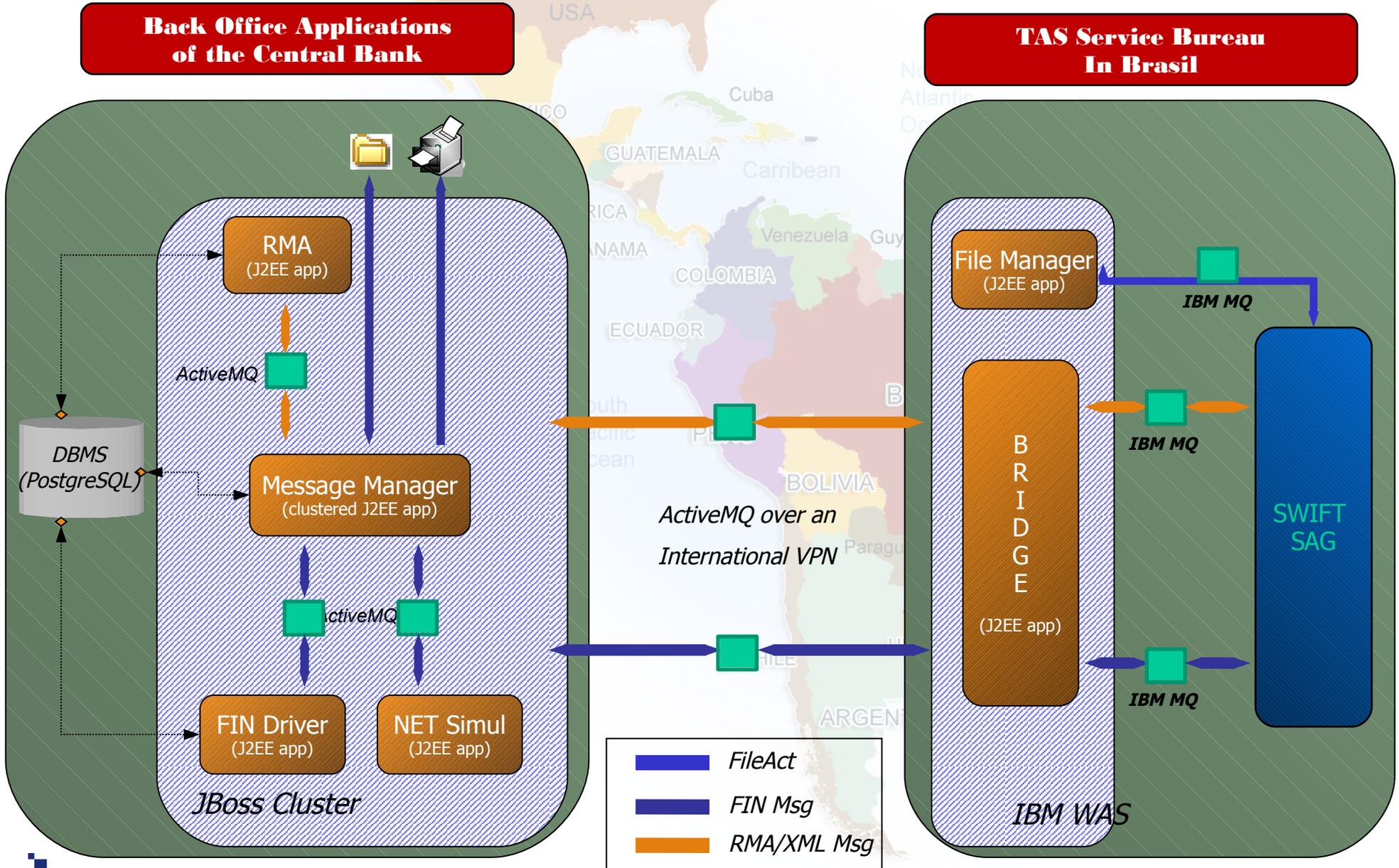
## The Business Case

In 2012 TAS signed an agreement with the **Central Bank** of a **Central America Country** to upgrade its network gateway for making **international payments** over **SWIFTNet**.

TAS implemented a solution based on a very advantageous **open source architecture**, that is connected to SWIFTNet via its **Service Bureau** located in Brazil.



# The Solution in Detail (1)



- ▬ FileAct
- ▬ FIN Msg
- ▬ RMA/XML Msg

## Full **Open Source** on Central Bank side<sup>(1)(2)</sup>:

- Linux **CentOS** v.5.8
- **JBoss EAP** v.6
- **JBoss A-MQ** v.6
- **PostgreSQL** database v. 9.04
- Fully implemented disaster recovery env.

## Full **XA transactional**:

- The XA transaction service provided by **JBoss EAP** guarantees the coherence and covariance of the data present in the **DB** and **A-MQ**, ensuring that all bank messages are managed end-to-end correctly.
- Despite the latency of the international VPN, over **100.000** payments per day are delivered over **JBoss A-MQ**.

(1) An updated version of JBOSS EAP, A-MQ and PostgreSQL is currently under acceptance tests.

(2) The same software platform has been installed successfully in a Bank of San Marino on a Microsoft Windows Server cluster.

# Pros & Cons of the open source Solution

## Pros

- Cheap
- Stable
- A wide community of developers and users
- Always up to date
- Last but first: **the customer is satisfied!**

## Cons

- Occasionally unstable in heterogeneous envs. used by some financial institutions (IBM DB2, IBM MQ, etc.)
- Some (unjustified) diffidence persists among some bank stakeholders



## Where We Want To Go

**TAS** aims is to extend its collaboration with **Red Hat** in order to:

- stabilize a open-source reference platform,
- increase the quality of its interaction with non-open source systems,
- offer customers an expanding set of TAS products on this platform.

Because today's imperative is to

***Develop high-quality software  
on efficient, high-quality and  
cheap platforms***



**Thank You**



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