



Arnaud Crouzet, Product Line Manager at ITS



## ITS

### FILTERS AND SAFEGUARDS EVERY PAYMENT TRANSACTION WITH DENY ALL

ITS's approach to customer service is based on dedicated, comprehensive customer support. ITS has developed tools and solutions to meet suppliers' needs and which aim to simplify management of their Visa, Mastercard and American Express card payment transactions.

**ITS is present on 2 major European sites:**

- Cergy Pontoise, (Paris) in France,
- Emsworth (London) in Great Britain.

[www.InteractiveTS.com](http://www.InteractiveTS.com)

**ITS is PCI DSS level 1 certified, the highest level currently available in terms of payment security, and is reviewed on a quarterly basis by an independent assessor.**

**Interactive Transaction Solutions (ITS), subsidiary of the American Express group,** has set up a powerful European acquisition platform for processing and securing all types of transactions with the aim of simplifying and optimising payment and additional data flow. Hosted in the BT data centre, the ITS platform processes and secures transactions involving cards (including purchasing cards) between traders and banks.

Using a single solution for card transaction acquisition frees traders from banking format problems, giving a single type of message format. For this type of service, availability, security and reliability are capital.

*"We want to guarantee our customers faultless service, which implies in particular: high availability and security.*

*Platform and supervision redundancy 24/7 ensured that this first objective was achieved. The second was partly met by a first level of filtering on the transport and session layers. However, we also had to ensure that a request arriving on our servers was not an attempted intrusion.*

*The only way to solve this problem was by filtering requests at application level. Deny All has provided us with the solution: rWeb", stresses Arnaud Crouzet, Products and Solutions Manager at Interactive Transaction Solutions.*

"The well-established reputation of Deny All's reverse proxy, the company's many banking references and the local technical support all contributed to our decision."

#### **APPLICATION SECURITY FOR AN OPTIMAL LEVEL OF FILTERING AND PROTECTION.**

The ITS objective was to increase security via an application filtering solution capable of analysing the requests received, at HTTP and XML level.

With the aim of improving the security and reliability of the services provided, reducing platform response time and analysing incoming flow with an additional level of filtering, Deny All's reverse proxy, rWeb, emerged as the final choice.

This solution has proven ability in handling large volumes of HTTPS transactions, which are very demanding in terms of resources.

This avoids the serious consequences of service interruptions.

The Visa AIS (Account Information Security), MasterCard SDP (Site Data Protection) and PCI DSS certifications, have successfully been carried out.

They concerned an in-depth technical and organisational analysis (examination of security rules, firewall rules, contracts, operating procedures, ...).

Certification, awarded by an independent company, testifies to the reliability of the ITS services platform.

## ACTIVATING A POSITIVE SECURITY MODEL

Installed as a complement to traditional firewalls, rWeb operates entirely at the application level, checking all the data flows and exchanges between the computer systems of traders and those of the ITS secured platform.

rWeb was chosen for its ability to protect applications against known and unknown attacks, by activating a positive security model.

Based on black and white lists, it immediately eliminates all known attacks and adapts to the applications, thus ensuring that only valid requests corresponding to normal use are transmitted to the applications.

*"rWeb filters requests in their entirety - their form and content, headers, forms, cookies and any variable parameters.*

*The black list supplied by Deny All immediately blocks dangerous requests, while the white list automatically adapts to the platform",* explains Arnaud Crouzet.

*"The programming of white lists has enabled us to optimise our applications, and therefore security, by offering more precise and controlled checking of data flows.*

*Deny All's reverse proxy solution is an essential element in the infrastructure and contributes to the quality, high availability and security of the ITS offering."*

Through the acceleration functions – caching, load balancing, SSL encryption, server compression – rWeb greatly increases the platform performance. In this way, costly server replication and service interruptions are avoided.

rWeb uses mechanisms for automatic apprenticeship of request form and content to fully adapt to the specificities and service upgrades offered by the platform.

rWeb ensures high availability and optimum load sharing to cope with the several thousand transactions per hour handled by the platform every day.

The infrastructure has integrated link securisation, thanks to rWeb's end-to-end decryption/re-encryption of SSL flows.

The platform data base itself is fully encrypted.

## MEASURABLE RESULTS

The solution, which was deployed in June 2004, required three months of study and calls for tender, plus two and a half months of design, prototyping and deployment.

**Since the installation of rWeb, no attack has been able to reach the servers protected by the product.**

Thanks to the security provided by Deny All, the global security process was extended to the entire secured platform.

Combined with firewalls and intrusion detection probes, Deny All's reverse proxy solution contributes to the quality, high availability and security of the ITS offering.

### rWeb

- Complete filtering of Web applications (positive security model)
- Protection against known and unknown attacks
- Deployment in High Availability, with Server Load Balancing
- Compatible with all browsers, firewalls, servers, load balancers and statistical tools
- More than 9 years of deployment in production
- Available either as an appliance or as a software version

### Performance and simplification

- The highest level of protection of Web applications
- Rapid deployment of new Web applications
- Rapid and programmable security function start-up
- Up to 17,000 requests per second per appliance

While conventional security solutions check the network conformity of inbound traffic, they do not check its contents, the principal medium for attacks over recent years. Deny All resolves this content problem with its range of proactive application control and flow acceleration solutions.

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