




beyond
payment

Incendo Online Business Brief


Version 1.4

January, 18th 2010

	Type : Business Brief Title : Incendo Online Business Brief CONFIDENTIAL	Page : 2 / 9 Version : 1.4 Date : 18-Jan-10
---	--	---


Document Change History

Version	Date	Description of Change(s)	Author
1.0	03/04/2009	Creation	D. Barritault
1.1	07/05/2009	Benefits section added	D. Barritault
1.3	16/01/2010	Technical overview added and various corrections	D. Barritault
1.4	18/01/2010	Smart client and Plug-in concepts added	D. Barritault

 Services	Type : Business Brief Title : Incendo Online Business Brief <p style="text-align: center;"><u>CONFIDENTIAL</u></p>	Page : 3 / 9 Version : 1.4 Date : 18-Jan-10
--	--	---

Contents

1. Incendo Online Overview	4
1.1. Introduction	4
1.2. Technical overview	5
2. Solution highlights	7
2.1. Development	7
2.2. Deployment	7
2.3. Real-time update	7
2.4. Management	8
2.5. VAS Partner Program	8
3. Key Benefits	9

	Type : Business Brief Title : Incendo Online Business Brief <p style="text-align: center;"><u>CONFIDENTIAL</u></p>	Page : 4 / 9 Version : 1.4 Date : 18-Jan-10
---	--	---

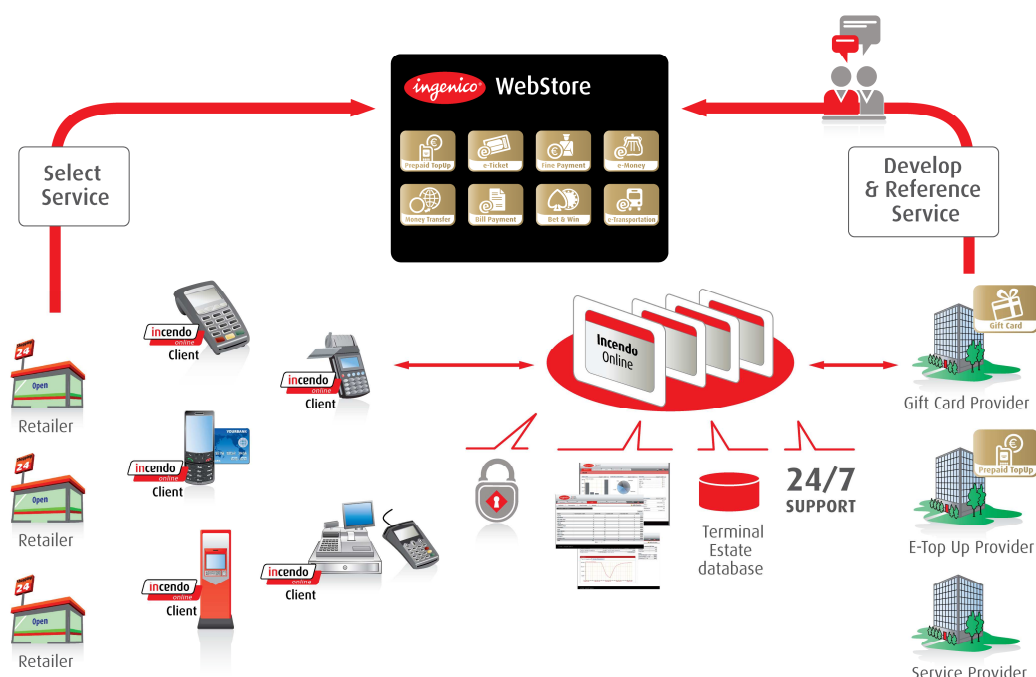
1. Incendo Online Overview


1.1. Introduction

Incendo Online is a complete framework for the development, deployment and management of applications in a secure point of sale terminal. Incendo Online uses standard web-based technologies and “smart client” architecture to provide a full end to end solution, including:

- rapid development through the use of an XML-based environment and Agile development practices;
- flexible and rapid deployment of applications and services to the terminal fleet;
- real-time update of services through a hosted online gateway communicating with a secure web browser on the terminal;
- a managed interface between the terminal and the VAS (value-added service) providers; and
- powerful online configuration and reporting, accessed through the Ingenico e-Portal

Incendo Online combines the flexibility of web technologies with a secure environment to create new opportunities for revenue development and business partnerships through the terminal fleet. Established value-added services such as prepaid top-up, loyalty cards and gift cards can be combined with new information-based services such as advertising at the point of sale.



 Services	Type : Business Brief Title : Incendo Online Business Brief <p style="text-align: center;"><u>CONFIDENTIAL</u></p>	Page : 5 / 9 Version : 1.4 Date : 18-Jan-10
--	--	---

1.2. Technical overview

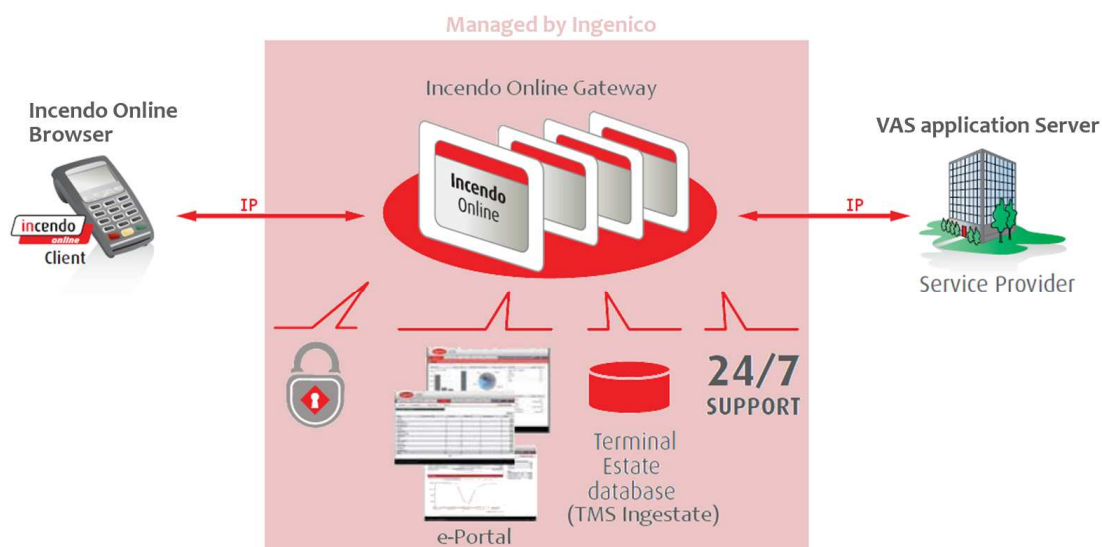
Incendo Online is an Ingenico managed service offer that bridges customer “touch points”, such as EFTPOS terminals with Value-added Service Providers.

Incendo Online is based on a web “smart client” technology: terminals connect through a Gateway to application servers over TCP/IP networks.

The “smart client” approach is based on a thin-client concept enriched with a number of local functionalities in order to optimize the service execution and to comply with some the constraints of card-based transactions. For example, a smart client loaded on the terminal would embed all the necessary functionalities to secure service transactions, to optimize performance of contactless transactions and to handle offline transactions to ensure proper service continuity.


Value-added services are written in TML (Terminal Markup Language), a XML-based language, and sit on the application servers. They are rendered on the terminal thanks to a web browser.

The following drawing presents the different modules of Incendo Online:



Incendo Online Browser:

Ingenico has implemented a unique Browser that resides on the merchant terminal and that uses Terminal Mark-up Language (TML), an XML-based language. The browser is able to render and navigate TML pages delivered on demand by the Incendo Online Gateway which interfaces to the Service Provider host. The Browser creates a secure environment for the operation of the service.

 Services	Type : Business Brief Title : Incendo Online Business Brief <p style="text-align: center;"><u>CONFIDENTIAL</u></p>	Page : 6 / 9 Version : 1.4 Date : 18-Jan-10
--	--	---

Incendo Online Browser is in charge of the following :

- TML language interpreting.
- Terminal user-interface (display, keypad) management.
- Terminal peripheral (printer, card readers,...) access.
- Cache memory management for TML pages, in order to reduce the needed network bandwidth and to improve overall performances.
- Local magstripe, contact and contactless smart card treatment.
- Local (offline) service transactions management.
- Secure communication channel handling with Incendo Online Gateway (SSL v3 with mutual authentication).

Moreover, Incendo Online Browser functionalities can be enriched by native-code “plug-in” software modules. These modules, once loaded on the terminal, can communicate with the Browser and bring for example additional peripheral support, implementation of specific treatments or communication with other applications embedded in the terminal.

Incendo Online Browser works on Ingenico terminals based on either U32 or Telium platform and connected through IP network (GPRS or Ethernet), as per the following:

- UniCapt 32: Aqua, i5100, i5310, i6550, i6580, i6770, i6780, i8550.
- Telium: EFT Smart, EFT930,
- Telium 2: iCT220, iCT250.

Incendo Online Gateway :


Incendo Online Gateway is managed by Ingenico. It ensures the link between terminals, which feature Incendo Online Browser, and application servers which host one or several VAS in the form of TML pages.

Incendo Online Gateway is in charge of the following functionalities:

- Bandwidth optimization by data compression.
- Terminal rights management: authentication, eligibility to VAS, etc...
- VAS server rights management: authentication, etc...
- Connection and communication handling between terminals and application servers.
- Securing of Browser ⇔ Gateway ⇔ Application Server communication channel (SSL V3).
- Interfacing to Terminal Management System (Ingestate) for estate management.
- Interfacing to e-Portal reporting tool.
- Handling of VAS availability.

VAS application servers (not included in Incendo Online offering) :

These VAS application servers are hosted and managed by each value-added service Provider. These servers could be based on widely used open standards for web development such as Apache, MySQL, PHP, etc... These servers host VAS and provide these services to terminals through Incendo Online Gateway. VAS are written in TML, an XML-based language fully suited to terminal constraints. They are rendered on the terminal thanks to Incendo Online Browser.

 Services	Type : Business Brief Title : Incendo Online Business Brief <p style="text-align: center;"><u>CONFIDENTIAL</u></p>	Page : 7 / 9 Version : 1.4 Date : 18-Jan-10
--	--	---

2. Solution highlights

2.1. Development

The use of open Internet-standard technology facilitates the rapid development of value-added services, and gives service providers access to a wide pool of application developers. By providing a suite of development tools (SDK), including a terminal simulator, Ingenico enables developers to create new applications that comply with the security requirements appropriate to the payment terminal and that accommodates to its specific features.

2.2. Deployment

Incendo Online provides an elegant but powerful solution to the deployment of service applications through an online gateway and web interface, enabling the terminal fleet operator to select the required services to be deployed to each terminal.


Incendo Online delivers the selected applications to the terminals through a secure communications framework. Full visibility of terminal status and configuration, as well as the distribution of the service, is provided through the web interface.

Incendo Online provides complete service lifecycle management, including the distribution, management and deletion of applications.

2.3. Real-time update

The smart client web-based approach ensures that the service on the terminal accesses the most current data available on the application server whenever the service is invoked. There is no need to push data updates out to the terminal fleet, incurring delays and requiring management effort to plan and schedule the updates.

As soon as a TML page is updated on the server it becomes available to all terminals in the fleet. To minimize network demands and to optimize performance on the terminal, TML pages are cached on the terminal so that static pages are available instantly to the user; this also allows for offline operation where this is permitted by the service application.

 Services	Type : Business Brief Title : Incendo Online Business Brief <p style="text-align: center;"><u>CONFIDENTIAL</u></p>	Page : 8 / 9 Version : 1.4 Date : 18-Jan-10
--	--	---

2.4. Management

The Ingenico e-Portal provides a central web-based access point for the management of services through Incendo Online, including:

- access to the value-added services WebStore;
- provisioning and personalization of the services on the terminal fleet; and
- Extensive visibility of the services, including statistics, reporting and diagnostics.


Incendo Online has been designed to provide efficient and effective lifecycle management, both at the application level and at the data level, enabling services to be targeted to specific sectors or campaigns.

For example an application may be deployed in the lead up to a specific event, such as a major sporting event, and then be removed afterwards.

Alternatively, the services offered may be updated and adapted to address varying demands such as seasonal activities.

2.5. VAS Partner Program

As part the Incendo Online service, Ingenico is developing a Partnership Program to support the development of value-added services by application developers. The aim of the program is build a community of developers and service providers that can either offer a range of existing applications or undertake development of customized service applications for fleet owners.

 Services	Type : Business Brief Title : Incendo Online Business Brief <p style="text-align: center;"><u>CONFIDENTIAL</u></p>	Page : 9 / 9 Version : 1.4 Date : 18-Jan-10
--	--	---

3. Key Benefits

For Terminal Fleet Managers

- Unlimited number of value-added services:
Thanks to Incendo Online innovative smart client technology, the Terminal Fleet Managers have now access to a virtually unlimited number of value-added services that can be proposed to their customers, enabling revenue increase by up-sales and greater customer loyalty.
- Easy value-added service management and monitoring:
The Terminal Fleet Managers are in full control of their value-added service strategy: e-Portal provides a clear and extensive reporting on service transactions and helps the fleet manager to make proper business decisions based on service return.
The WebStore helps to align the value-added service portfolio in the terminals to the business objectives and therefore to optimize fleet managers' service offering.
- Completely managed solution:
The Terminal Fleet Managers can now provide value-added services to their end-customers with minimal investment and maximum return. They do not have to worry about scalability, connectivity, security of the system, installation of software and access to the services, as this managed by Ingenico.
- Support of existing terminals:
Incendo Online allows Terminal Fleet Managers to benefit from value-added services on some of their existing terminals (for U32 and Telium terminals with IP connectivity, and depending on the country), without hardware upgrade or cumbersome software upgrade, and therefore preserving the initial investment done in terminal hardware.

For Value-added Service Providers

- Fast Time to Market:
Thanks to Incendo Online architecture and web-based technology, the time needed for the development and the deployment of value-added services on terminals is drastically reduced. Value-added Service Providers benefit from a faster time to market at lower cost, and get more revenue opportunities based on short service life-cycle and greater reactivity.
- Access to a huge number of customer touch points:
Incendo Online technology fully leverages the huge existing base of U32 and Telium terminals deployed on the field worldwide. For the Value-added Service Providers, this means access to a large number of customer touch points bringing potentially high revenues right from the start.
Furthermore, Incendo Online is well positioned for future terminals, but also PDAs, kiosks, etc..., bringing more opportunities to touch customers with a service offer.
- Increased visibility of the VAS :
Incendo Online puts tools in the hands of Value-added Service Providers to promote and market their services more efficiently: the WebStore provides greater visibility of the service, resulting in more attention from Terminal Fleet Managers. Additionally, promotional campaigns towards end-customers can be easily organized on targeted terminals and services.