

Technology Audit

Integration and BPM

Jacada

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Jacada Fusion v3 and Jacada WorkSpace v3

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Abstract

Jacada WorkSpace and Jacada Fusion, create the foundation for a Service Oriented Architecture (SOA) approach in reusing existing infrastructure assets. Jacada Fusion is applicable to any organisation type, and Jacada WorkSpace is focused on enhancing the operability of the contact centre and is a unified agent desktop for contact centres, which offers dynamic call scripting, soft phone, up-sell/cross-sell, workflow, and application nesting. The Jacada Fusion process optimisation platform simplifies agents' interactions with business systems by automating and optimising processes; including processes that flow across non-integrated business systems. In order to access and interact with all application types, the platform employs a non-invasive approach to interface with different desktop applications and business systems. As a result the agents' process workflow can be controlled without any replacement or modification of existing business applications.

The Jacada Fusion process optimisation platform has the capability of integrating in a non-invasive manner with any application, without requiring an API or access to the underlying source code. This holds true for Web, Windows, and host applications. It is therefore possible to expose all of an organisation's existing systems as open standard Web services, without modification to the underlying system. These Web services can then be used within the larger context of an SOA. In addition, Jacada Fusion also has the ability to monitor interactions at the desktop level, and based on this interaction, send events to the server.

Jacada provides multi-channel training for its solutions along with support from a Professional Services Organisation. Jacada Fusion can be implemented in a modular fashion, with the ability to add new users and/or new applications within the service-enabled environment. Although Jacada Fusion is a true SOA solution, the strategic imperative from Jacada is on the contact centre, and this means that much of the inbuilt functionality is specific to that space – although this does not preclude its use in other areas, it can be considered as something of a weakness.

KEY FINDINGS

Key: ✓ Product Strength ✗ Product Weakness ⓘ Point of Information

✓	Completely non-invasive approach to service-enabling applications.	✓	Highly-scalable solution with fault tolerance.
✓	Extended functionality through Jacada WorkSpace to create customised environments.	✓	Specific implementation for access to host systems.
✓	Both .NET and J2EE implementations and application integration.	✗	The inbuilt functionality of Jacada Fusion is tightly focused on contact centre environments.

LOOK AHEAD

Jacada has a release schedule of one major release per year, and future developments will focus on expanding support for CTI systems, extending dashboarding capabilities, enhancing administration capabilities, and increasing multi-channel support.

► FUNCTIONALITY

Product Analysis

The two elements of Jacada's solution – Jacada WorkSpace and Jacada Fusion, create the foundation for a Service Oriented Architecture (SOA) approach in reusing existing infrastructure assets. The Jacada Fusion platform is applicable to any organisation type, and Jacada WorkSpace is focused on enhancing the operability of the contact centre.

Jacada WorkSpace is a unified agent desktop that provides a single point of access to all the mission-critical applications and resources required by the agent to effectively complete an interaction. Jacada WorkSpace is, in essence, a desktop interaction hub that integrates all tools and channels of communications with the customer.

The **Jacada Fusion** process optimisation platform simplifies agents' interactions with business systems by automating and optimising processes; including processes that flow across non-integrated business systems. In order to access and interact with all application types, the platform employs a non-invasive approach to interface with different desktop applications and business systems. As a result the agents' process workflow can be controlled without any replacement or modification of existing business applications.

Powered by Jacada Fusion Non-invasive Integration technology as well as Jacada Desktop Automation technology, the Jacada Fusion process optimisation platform offers a multitude of features that deliver process efficiency to the organisation, including the following:

- Single-Sign-on.
- Single View of the Customer.
- Dynamic Scripting.
- Up-sell and Cross-sell.
- Adherence, Compliance, and Alerts.
- Auto Call Wrap-Up and Disposition.
- In-Call Intelligence.
- Workflow and Process Automation.

Jacada Non-Invasive Integration Technology, the foundation of the Jacada Fusion platform, is comprised of a set of products that allows for seamless, non-invasive integration into any Web, Windows, or host application. Selective functionality in an application can be service enabled and exposed as an open standard Web service.

Jacada Fusion has the capability of integrating in a non-intrusive manner with *any* application, without requiring an API or access to the underlying source code. This holds true for Web, Windows, and host applications. It is therefore possible to expose all of an organisation's existing systems as open standard Web services, without modification to the underlying system. These Web services can then be used within the larger context of a SOA. In addition, Jacada Fusion also has the ability to monitor interactions at the desktop level, and based on this interaction, send events to the server.

Organisations looking to move towards a service-based architecture, but who are either reluctant to deconstruct the processes implemented within the installed application base, or who lack the resources to create a component-based process-centric architecture, will find immense value in the Jacada Fusion solution. However, Jacada does have a strategic focus on the Contact Centre space, and as such much of the inbuilt functionality is centred on that particular requirement. That having been said, there are no technological or architectural limitations in the Jacada Fusion platform that would prohibit its use in other scenarios.

Product Operation

The **Jacada Fusion** process optimization platform is able to automate and optimise processes using three distinct techniques:

- **Service Enablement** – To build composite applications from existing applications by exposing the business logic and data within the application as a Web service that can be called during the runtime of a process. This means that desktop applications can be implemented server-side, and the required functionality called as a service when required.
- **Desktop Automation** – It is also possible to retain the application on the desktop and utilise Fusion to perform specific functions, such as presentation of a specific screen, or pre-fill a form, based on pre-defined events.
- **Event Publishing** – Fusion can enable applications to participate within the context of an Event Driven Architecture (EDA). Events of interest can be defined on the underlying desktop application, and these events will be published in real-time as they occur, based on the user's interaction with the application.

Jacada Fusion employs a set of server side components that execute within a J2EE application server, deployed either as Java classes or JCA's. The only exception is the Windows component of Jacada Fusion (WinFuse), which by its very nature of service enabling Windows applications, requires a .NET server.

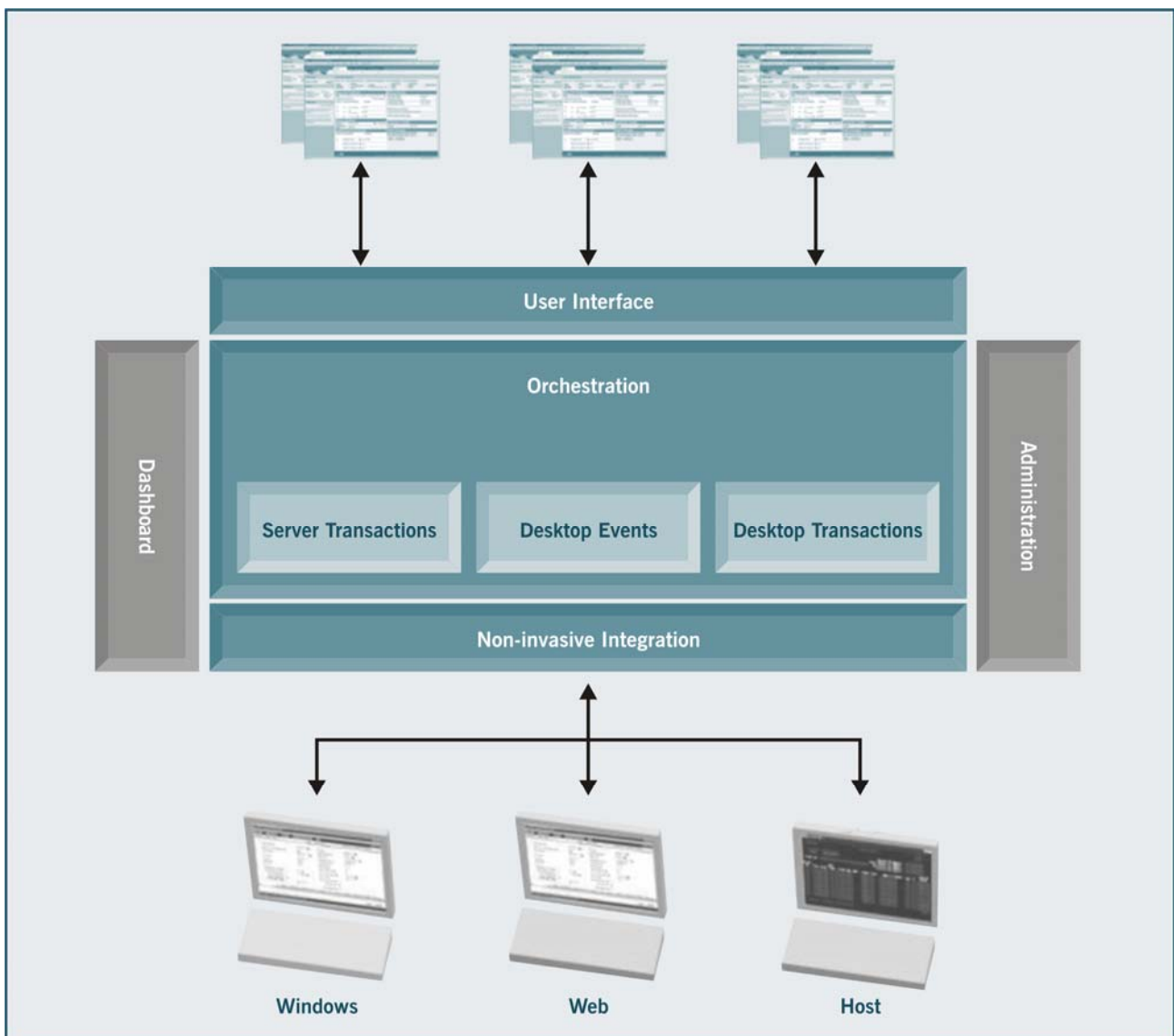


Figure 1 – Jacada Fusion Architecture

Jacada Fusion has been designed for massive scalability in the most demanding of environments. Jacada has enterprise licenses in place with clients running concurrent users in excess of 8,000 users. In addition to clustering of servers, standard load balancing products can be used in conjunction with Jacada Fusion. Jacada Fusion offers excellent fault tolerance. Servers can be clustered to present seamless failover.

As Jacada solutions are aimed at the contact centre market, it is worth considering **Jacada WorkSpace** – this is a unified desktop for customer service representatives that provides a single point of access to all the mission-critical applications and call centre tools required by the agent to effectively complete a customer interaction.

Jacada WorkSpace offers specific functionality in the following areas:

- **Universal Agent Desktop** – Jacada WorkSpace is role-based, meaning the appearance and arrangement of the desktop is automatically adapted based on the specific function the agent is performing. As a result, agents are equipped with the resources to handle multiple product lines and services – customised to the task they are performing.
- **Dynamic Call Scripting** – A powerful and easy-to-use call scripting tool that generates dynamic scripts. The script reacts to responses by the agent, a selection made in the Interactive Voice Response (IVR) system, or the role the agent is playing. The script can also seamlessly interact with business systems so that information entered in the script is automatically posted to support systems such as billing, CRM, or order management applications. The agent is able to remain in the script during the entire call without having to move between applications, or the script can automatically navigate the agent to where they need to be for the next step in the call.
- **Soft-Phone Features** – Provides agents with call control features such as availability, call transfer, conferencing, and call holding from the desktop.
- **CTI Integration** – Enables screen pop-ups of customer information as well as automatic script and offer selection based on customer identification or inputs.
- **Single Sign-On** – Powered by the Jacada Fusion platform, Jacada WorkSpace eliminates redundant log-in activity by enabling agents to enter a single user ID and password for all applications used to support their tasks.
- **Application Access** – Provides a universal workspace that acts as a nesting environment and single point of access to existing business applications. Agents can easily access appropriate business applications using tabs on the desktop.
- **Notifications and Alerts** – Fully customisable alerts to communicate critical information about customers, up-sell/cross-sell offers, or corporate information, before and during the interaction.
- **SmartPad** – The SmartPad eliminates redundant data entry and increases data entry accuracy. With SmartPad, information that is entered in one application can be automatically populated into similar fields in other applications.
- **Context-Sensitive Help and Frequently Asked Questions (FAQs)** – Provides agents with easy access to pre-existing help systems, knowledge bases, information portals, FAQs, and other reference materials.
- **Desktop Personalisation** – Agents can change the color, font, and layout of the desktop to fit personal tastes.

Product Emphasis

Overall, Jacada solutions are powerful tools with specific built-in functionality for the contact-centre market. To a certain extent this can be considered as an underutilisation of the solution. As many organisations are keen to move towards a SOA in a non-invasive fashion, perhaps as a proof of concept, then the Jacada Fusion solution would be ideal, but the emphasis on the contact centre aspect of the product undervalues the solution.

► DEPLOYMENT

Jacada projects are implemented by Jacada Professional Services and/or Value Added Resellers (VARs) in conjunction with client resources. After the initial implementation or training, many clients continue to use the products using their own, in-house resources. Although implementation times are dependent upon the client systems in place, the complexity of the processes, and the total requirements for functionality, average implementation times can vary from weeks to a few months.

One of the advantages of Jacada Fusion's non-invasive approach to service-enablement is that the solution can be implemented in a modular fashion, either by increasing the number of users on an as-needs basis, or by incorporating applications in a staged manner.

Full training is provided through a number of channels, although Jacada recommend some formal classroom training (available either on or off-site), as well as the client shadowing the Jacada Professional Service representatives during the implementation phase.

Jacada Fusion is deployable on Microsoft Windows, and J2EE-compliant platforms. There is a requirement for a J2EE-compliant application server, and if there are any Windows-based applications that require service enabling, then there is a requirement for a .NET server with IIS enabled.

Jacada Fusion consists of the following components that can be licensed separately:

- Jacada HostFuse.
- Jacada WinFuse.
- Jacada WebFuse.
- Jacada Fusion Event Monitor and Desktop Playback.
 - For Host.
 - For Windows.
 - For Web.

For mainframe systems, Jacada HostFuse supports TN3270 and TN3270E model 2-5 terminal connections. For iSeries (AS/400) systems, Jacada HostFuse uses TN5250 and supports both 80 column and 132 column displays. Jacada HostFuse can also be used to access other Telnet systems running on DEC/VAX and Data General platforms using VT100, VT220, VT320, and DG400 type protocols.

► PRODUCT STRATEGY

Jacada targets mid-sized to large contact centre operations. In terms of vertical targeting, Jacada Fusion is a horizontal product with users spanning across several industries.

Because of the speed of implementation, ROI can be realised in months rather than years. Jacada clients typically measure ROI in terms of cost savings through productivity gains (i.e., reduced costs through shortened call handle time, and reduced labour costs through reduction in training requirements).

As the contact centre market is global in nature, so too is the market opportunity for Jacada. The value proposition is improving agent productivity by simplifying and automating processes and systems. Contact centres across the world and across all verticals are heavily focused on operational efficiency. The Jacada Fusion solution allows them to make their processes more efficient, which leads to decreased costs and improved agent and customer satisfaction.

In the USA, UK, and Germany, the primary route to market is direct. However, in the ROW Jacada utilises a partnership program.

BEA and Avaya are key business partners for Jacada, and the former is also a key technology partner.

Typically Jacada Fusion is sold on an agent (CSR) seat basis. The cost per seat depends on the technology required by the customer to deliver the proper solution. Licenses are typically perpetual, with an annual software maintenance fee. Contract sizes vary significantly, but range from hundreds of thousands of US\$ to millions. In small to medium size contracts, the software and services fees are about equal; in larger contracts the ratio of software to services is much higher.

The standard maintenance fee is 20% of software licence fee, and includes phone support, fixes, and upgrades. 24x7 support is available for a fee of 25% of the software licence fee.

► COMPANY PROFILE

Jacada is a publicly-traded company (NASDAQ: JCDA), officially headquartered in Israel, with North American HQ in Atlanta, GA and offices in the UK, Germany, and Brazil. Formed 15 years ago, Jacada has a history in the programmatic integration market; service-enabling Web, Windows, and Host applications to optimise business processes.

There are 150 employees split in the following areas:

- R&D – 28%.
- S&M – 31%.
- Support & Services – 23%.
- Administration – 14%.
- Other 4%.

The last three years revenue figures in US\$ are:

2004 – Revenue: \$19.8m, Gross Profit: \$14.7m, Net Income: (\$5.6m).

2003 – Revenue: \$20.6m, Gross Profit: \$16.2m, Net Income: (\$2.1m).

2002 – Revenue: \$21.5m, Gross Profit: \$16.6m, Net Income: (\$2.9m).

Traditionally, revenue has been very heavily based in the North America market, as much as 85%, but there is a strong market emerging in the ROW, and Jacada expects this revenue split to become more balanced between North America and other markets in the coming years.

Among the total customer base of 1,200, key clients include:

- Vodafone UK.
- Cox Communications.
- West Corporation.
- Wausau Benefits.
- Centres for Medicare and Medicaid Services.
- State Auto Insurance.
- Cendant (RCI).

► SUMMARY

There is no doubt that Jacada Fusion and Jacada WorkSpace are effective solutions in the Contact Centre market space, nor is there any doubt that Jacada Fusion could be valuable outside of this market. With its non-invasive approach to service-enabling applications, Jacada Fusion allows organisations a quick on-ramp to creating a SOA environment. As it operates across both J2EE and .NET environments (with specific deployment requirements) it answers many of the concerns about creating interoperability between disparate environments.

With the extensive functionality of the new Jacada Workspace, Jacada Fusion has moved from its earliest inception as an integration methodology to create easier interactions, to a full-blown toolset for creating a more adaptable and usable environment. The addition of the dynamic scripting language, as one example, allied to the underlying core technology, will allow organisations to create new ‘applications’ specific to organisational requirements.

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