

Compass Plus: TranzAxis Product Review



Overview & Summary

This report has been generated by PayX International Limited (PayX) commissioned by Compass Plus. Information was gathered using workshops and interviews with the assistance of individuals within Compass Plus and PayX.

The payments industry is in an unprecedented period of change. The world of payments is in motion to be fundamentally transformed in the coming 5 years. It is being reshaped by technology and redefined by regulation, the emergence of new economic powers, changes in the global monetary landscape and the pull from consumers for new and better services. Payments is being consumed into the wider world of commerce. Most importantly, in the next few years existing payments businesses will be refocused from an increasingly commoditised proposition towards a more sophisticated one that is offered with greater focus on the broader commercial and transactional context within which a payment (or a transfer of value) takes place.

Compass Plus, with a foundational powerhouse of proven solid technology and product portfolio and a growing customer and revenue base, is well placed to capitalise on the imminent changes in payments that are upon us. Compass Plus have had the foresight to recognise the opportunity and the need for change to not only survive, but adapt to seize the opportunities head on. The creation of TranzAxis directly responds and addresses the needs of the future. The complementary new host processing business and a footprint in several geographies are good step actions to diversify to maximise the changing world of opportunities. Compass Plus has, and still is, evolving as the landscape changes.

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The existing model of working on delivering solutions to what the customer wants is different to their peers, who often push a product with customisations. As banks look for solution 'partners' not product companies, TranzAxis encapsulates and delivers to the fact that, going forward, business users need to be able to define new products dynamically (in hours and days) in ways that have never been thought of before, i.e. the user does not need technical staff in-house or vendor level involvement to be able to create and bring new business offerings to market.

TranzAxis is an agile, well-designed and architected platform, with a suite of solutions suitable for the needs of businesses with rapidly changing business requirements. It is a very credible transaction processing platform leveraging the full capabilities of a service architecture coupled with reliability and availability previously only possible with fault tolerant hardware platforms.

Compass Plus is a strong technical company that has produced a visionary product for its core markets with great potential for a wider audience

Over time, additional components have been added to the stable of solutions, providing an attractive 'one stop shop' for companies requiring the capability for high volume, high availability transaction processing while allowing business users the ability to create / define their own products without major IT intervention.

The componentised SOA-based platform enables legacy integration to pre-existing core functional capabilities using a 'plug & play' component-based architecture. The SOA-based design can enable significantly reduced time to market for innovative alternate payment and value add schemes.

In addition, a number of innovative components can significantly reduce the current customer cost base by replacing expensive, licensed-model driven, 'locked-in' components with more 'open' designed core elements, such as the messaging interface, APIs, crypto services and tokenisation to name but a few.

It allows the customer not only the flexibility to control its own destiny, but gives them the potential to grow in terms of functionality and volume for the foreseeable future.



Architecture & Functionality

TranzAxis was designed and developed in-house by Compass Plus and launched in 2011, building on the wealth of knowledge from the development and implementation of its successful sister platform, TranzWare, to ensure that the company could meet all technology requirements; known and unknown, now and in the future. A key objective was to give customers a much greater ability to customise and control their own applications without necessarily resorting to vendor support.

This has great appeal to organisations that have traditionally built their own systems, but find the ever growing functional and industry requirements difficult to cope with. TranzAxis overcomes this by providing an agile, modern, open architecture built and implemented using a comprehensive set of development tools available to both the vendor and its customers as an inherent part of the system. The platform also includes extensive APIs for integration with an increasingly complex payments ecosystem.

The core architecture is comprised of the Transaction Engine, Workflow Processor and Core Objects components, which leverage the open environment and provide not only high availability and system redundancy, but very high transaction throughput scalable both horizontally and vertically. These core components are packaged together with other services, such as cryptography and tokenisation.

TranzAxis has clearly demonstrated its ability to accommodate industrial strength international systems that drive 80K e-com merchants, 200K POS and 30M transactions per month. Another example is an ATM acquiring system that drives over 1,800 ATMs with an average of approximately 19 million transactions per month.



TranzAxis supports interfaces for POS and ATM acquiring, self-service, internet and mobile channels, including NDC, DDC, Wincor (inc. variants), as well as support of multi-vendor environments.

POS Acquiring comprises terminal management services and support for ISO 8583 and proprietary based connections. It is well suited to large terminal populations or retail environments by the support of group configuration functionality.

TranzAxis fully supports EMV, including support of DDA and Post Issuing Scripts, e-commerce transactions (including 3D Secure) and tokenisation. Transactions initiated by mobile devices are fully supported by TranzAxis, including SMS and Mobile payment apps. The platform is PA-DSS compliant.

Major card scheme interfaces, such as Visa, Mastercard et al, are supported as well as a number of national and regional gateways, payment portals, processors, core banking, card management systems and third-party systems. E-commerce (including 3D Secure) and mobile commerce channels are also well supported.

The Graphical Interface Designer can be used to develop and modify custom interfaces to external systems, enabling the parsing, validation, translation and processing of messages of any format including XML, ISO 8583 and ISO 20022.

Core to the TranzAxis solution is the ability to design and deploy interface modules to external entities, such as providers (Schemes, Issuers et al) and consumers (NCR, Diebold, Ingenico et al). Each time an interface is configured/developed and deployed, the config is added to the standard set of interfaces available to customers.



Functionality & Customisation

The Compass Plus suite of products are comprised of the mandatory core components plus a number of solution offerings. Examples of the major offerings are:

- Credit/Debit/Prepaid Cards
- Internet Banking
(Note this module is adaptable for mobile browsers)
- Batch & Instant Issuance
- Fraud Management
- Merchant Acquiring
(Note this contains full merchant acquiring functionality)
- Loyalty
- ATM Acquiring
- Mobile Payments

The above packages are function rich and provide a solid base for a customer to build their implementation. TranzAxis is available in different operating models: SaaS, PaaS, Licensing, or various combinations of the above.



The customisation tools provided allow customers to define system behaviours by means of:

- transaction processing rules
- limits
- restrictions
- tariffs
- user-defined functions (in Java)
- user-defined interfaces (online, offline, streaming)
- user-defined reports
- user-defined workplaces
- user-defined data structures

System configuration and management with parameters and scripting are available via TranzAxis Desktop Explorer (rich client). Operator parameters, workflow parameters and report queries with parameters can be configured. Certain system management operations can be performed via web-based workplaces and all daily system operations are available via web-based workplaces.

Compass Plus provide a set of built-in development tools which include:

- report designer to create, customise and modify reports,
- workflow designer,
- custom interface designer for online and offline interfaces with 3rd-party solutions.

These tools greatly assist productivity and have been developed in-house for use by both Compass Plus implementors and customer staff.

Technology

The core TranzAxis system is developed in Java, which gives the product a high degree of transferability across operating systems and hardware platforms. Typically, TranzAxis is deployed on Linux, Unix and Windows based platforms, although with its Virtual Machine capabilities, the hardware platform does not have the relevance of the past. TranzAxis is cloud-native and a number of customers are deployed and in production in the cloud.

TranzAxis requires Java SE and JRE (Java Runtime Environment). The TranzAxis web-server uses JavaScript to implement web-client logic in web browsers.

The architecture was designed for the use of cloud based managed service operating models, proven with a number of customers in production, which is difficult for many competitive offerings using older technology bases.

The databases supported are Oracle Enterprise Edition and Oracle Standard Edition, with some business lines running on Postgres.

Continuous availability is provided by configuration on a system level and by a number of tools at the system and database levels.

Application server units can easily be distributed into several instances that run on the cluster nodes simultaneously and if one fails, then the instance would persist and start up on another live node.

Several third-party tools can be used to achieve continual availability for different solution components. Resilience and recovery in Active/Active environments using the TranzAxis Active-Active Database Cluster and Oracle Golden Gate is the same for both database and application resilience. Oracle Real Application Cluster can be efficiently used for database resilience and recovery. Resilience and recovery in Active/Active or Active/Passive deployments is usually provided by HA Clustering (high availability clustering) for applications and at the database level.

In addition, there is a proprietary solution for specific Active/Active payment gateway deployment options called TranzAxis Active-Active Switch. Oracle DataGuard can also be used for the DRS capability.



Development

Compass Plus follows its own development methodology, which follows a waterfall/agile model while RadixWare is used as a development environment with JIRA for tracking and task management.

From the samples seen, coding and documentation is to a high standard and follow best practices. All standards including coding, documentation and testing are internally developed by Compass Plus. All documentation and coding are done in English.

Compass Plus issues a new release of TranzAxis every two months. The development organisation appears to follow a waterfall/agile approach with short iterations of design and development in two month tranches with some overlap of the cycles.

Test tools are an inherent part of the system and can be integrated with external third-party test management systems such as Jenkins. Test tools are available for customers to use.

Customer Experience

Why did they choose TranzAxis?

- Referenceable cloud enabled system
- Web services orientation matched other applications and systems deployed by customer
- Availability of different pricing options
- Single API simpler than multiple APIs of others

One reservation expressed by customers was:

- Geographic coverage: Did Compass Plus have the correct skilled resources available in the Americas region?

These fears have been dispelled through the experience of working with Compass Plus as a good and trusted partner.

Initial Implementation

Implementation times met expectation or were quicker than expected. Customers expressed that the implementations were thorough and had exceeded their expectations.

Ongoing Experience

Compass Plus has demonstrated its willingness to listen to its customers and the TranzAxis User Group is found to be productive and worthwhile.

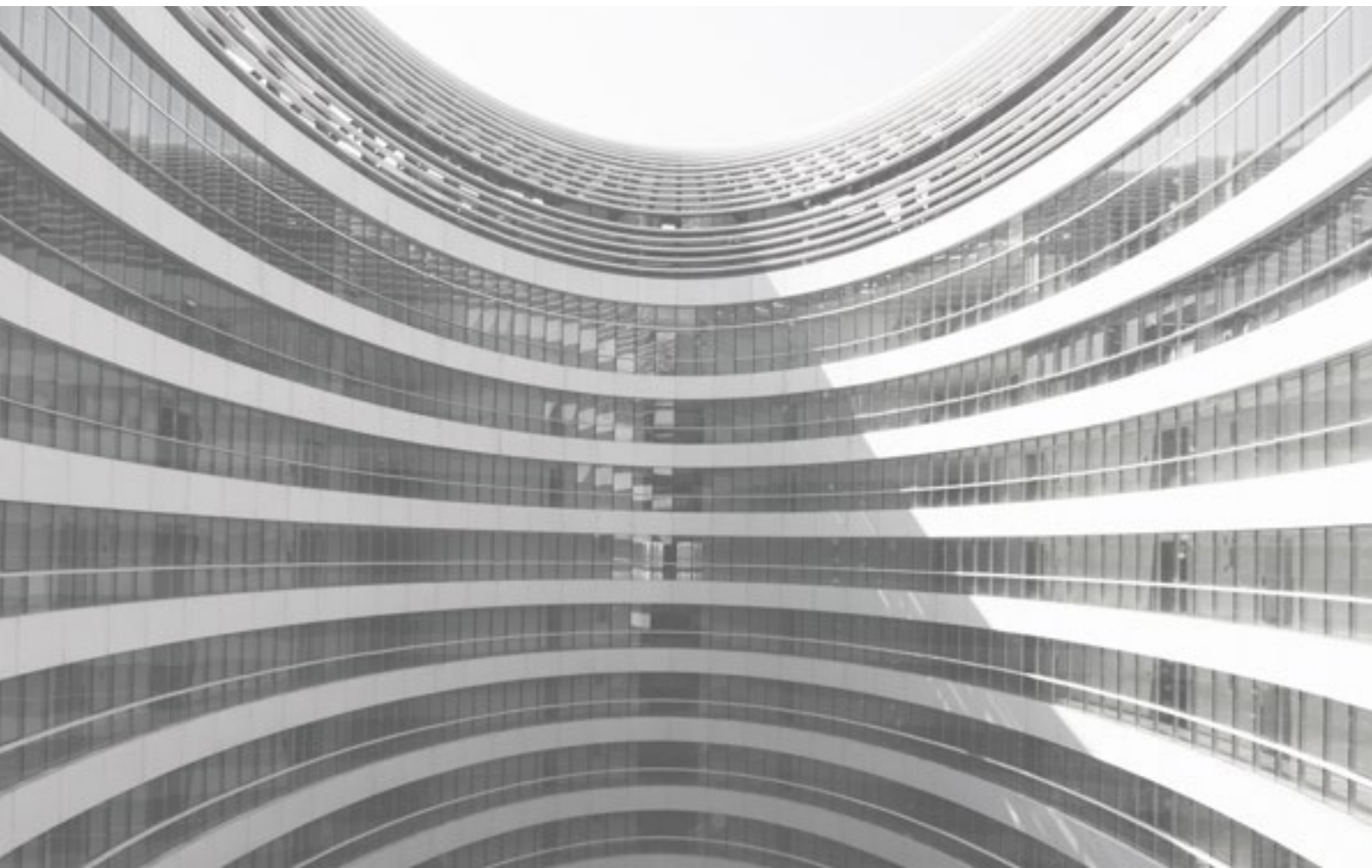
Positive support experience from Compass Plus, who is very responsive in fault resolution and bug fixing, with SLAs being met.

Customer staffing levels have been at levels expected for a system of this complexity. One customer reported that new staff are productive after one month's training, provided that they are already proficient in payments services.

Customers are happy that they have been able to be self-reliant.

Customers appreciate the ease of implementing new releases from Compass Plus. Transaction services have multiple threads so new code is upgraded one at a time without any perceived interruption in service.

Compass Plus has demonstrated its commitment to satisfying its customer demand for product changes and delivering customer satisfaction.



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