bank bank bank of SMBC Group

PT BANK BTPN TBK

JENIUS E2E ARCHITECTURE

This document contains information which is the property of PT Bank BTPN, Tbk. This document (including the parts in it) is not permitted to be disseminated, reproduced or transferred to parties other than PT Bank BTPN, Tbk. without written permission from the management of PT Bank BTPN, Tbk.

Classification: Internal

ACKNOWLEDGEMENT & REVIEW

Prepared By:	Signed	Date
Herendra [IT Solution Architect]	Reviewed	

Reviewed By	Signed	Date
[IT Solution Architect Lead]		
[IT Security Management Head]		
[IT Data Architecture & Governance Head]		
[IT Infrastructure Development Head]		
[COS Integration]		
[COS Common Services]		
[COS Core]		
[COS CC TFMS Lending]		
[COS Payment]		

Classification: Internal 2 / 13

[COS Sales]	
[IT Special Project AML]	
[IT Digital Banking & WMB Enabler]	

Classification: Internal 3 / 13

CHANGE HISTORY

Versio n	Date	Modified By	Explanation of Change
1.0	dd/mm/yyyy		Initial version

Classification: Internal 4 / 13

TABLE OF CONTENT

1	OVER	RVIEW	6
2	CAPA	ABILITY MAP	7
3	INTE	GRATION ARCHITECTURE	8
	3.1	FRONT END SYSTEM	g
	3.2	BACKEND SYSTEM	g
	3.3	PARTNER	
4	APPE	NDIX	11

1 OVERVIEW

This document contains high level of jenius architecture. The architecture describe application and system component that enable and support Jenius services, capability map within enterprise, and integration within internal system and external parties. Documentation has been created by colaboration between IT and Jenius to provide necessary information to evaluate a variety of quality attribute such as performance, availability, usability, security and maintainability.

- This document can be referrence for:
- Develop or enhance new product / services which require architectural changes.
- Architecture Integration analysis to perform improvement and/or problem resolution.
- Reporting purposes for OJK/BI or SMBC.

To keep this document usefull, it is necessary to involve relevant stakeholders in maintaining the accuracy of the information in it.

Classification: Internal 6 / 13

2 CAPABILITY MAP

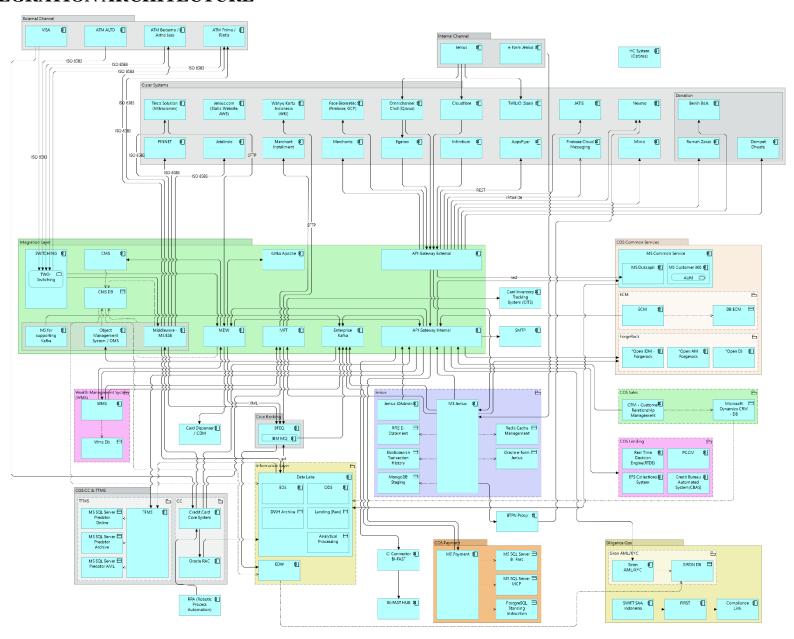
This diagram ilustrates the capabilities of bank btpn. The capability is managed and maintained by IT as part of the enterprise IT portfolio. The blue color indicate capabilities that directly involved in supporting jenius services.

		Self Directed	Assisted	Partners	Cyber Security
Channels & Distribution		Jenius.com Jenius ATM IVR	Web Portal E-Form Jenius Chat	t bot CMS Infinitium H2H WhatsApp for Business	Data Security
100			Single Customer Service Hub	J I	Security Risk Management & Reporting
	Enterprise Integration) Services*	API management	Identity & Access Management
Open Platform	77724774445744443		astic Services dmin	Sandbox API Gateway API Management Platform	Security Asset Management
**********	Messaging	Sales Marketing Decisions Engine		Customer insight and analytics	Incident Response & Mitigation
Operational Data		Sales Marketing Real Time Decision Engir	Single Content Management Customer Inc	Stomer Customer Customer Lifetime Value Management System 3 st Party Data	Incident Recovery
Supporting	ESB Middleware	Document management Case management	Card Management Product Bundling and Pricing	Intelligent Automation Low-code Platform Loan Origination Low-code	Recovery Planning & Strategy
platforms		Single Document Management Case Management	Card Management System Product bundling and Pricing	RPA platform Secured Digital LOS	Endpoint Security
Manufacturing	Secure File Transfer	Core manufacturing Loan Credit Card Core System	Loan & Deposit Payment and Remittance Billing N	Operations Management Collection and Recovery Reconcilitation & Settlement	Application Security Network Security
	Sir I	-	Data Management*		900000000000000000
Data Management		Data Ingestion Data Integration	Data Quality	Data Support Tool Data Access	Analysis & Reporting
		Metadata Management Standardue Reporting Finance Compliance & Legal Risk	SAS Office Analytics Server Treasury Human resources Fraud	Reference and Master Data Management Data Security Procurement IT Management*	Security Monitoring
Corporate Function		Regulatory Audit Management Reporting System	Treasury System Human Resource Fraud System Management	Project Portfolio Management Procurement System Helpdesk	Threat & Vulnerability Management
2.000000		AML/KYC Risk	System	Management Utilities*	Incident Planning & Response Strategy
Infra	Multi PaaS	Agnostic Compute Service Agnostic Network Service Private Cloud	Automated Provisioning Service Level Management Private Cloud	Metering IT Asset Management Endpoint Monitoring Service Continuity	
Management	Multi CaaS	Public Cloud Min.lo	Container Image Repository Release Management Multi Cloud Mc	anagement CMDB HW Monitoring	Infrastructure Security

*List of Application Used: AppBot, AppsFlyer, Bitbucket, Bugsnag, Firebase, Jenkins, MailChimp, NeverBounce, New Relic, Nexmo, SKEDDA, Slack, SmartSheet, Surge, TestRail, Typeform, Zeplin

Classification: Internal 7

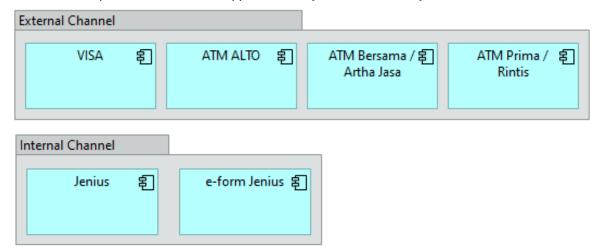
3 INTEGRATION ARCHITECTURE



Classification: Internal

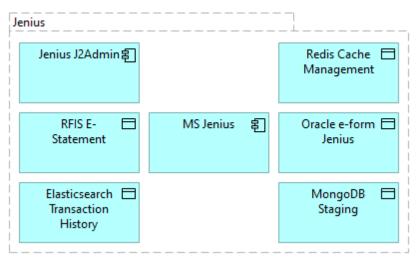
3.1 FRONT END SYSTEM

This section explain more detail on application / system that used by customer.



3.2 BACKEND SYSTEM

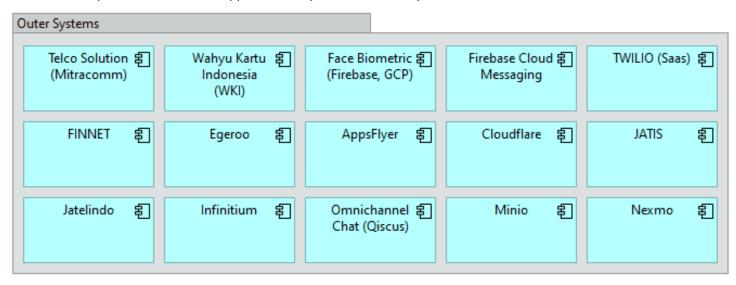
This section explain more detail on backend system that realized the business services.



Classification: Internal 9 / 13

3.3 PARTNER

This section explain more detail on application / system that used by customer.



Classification: Internal 10 / 13

4 APPENDIX

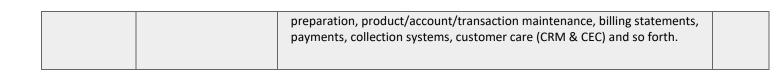
List of Application

APP_ID	APPLICATIONNAME	DESCRIPTION	RAN
sdb-cba-s1	Jenius	BTPN Digital Banking application equipped with Visa debit card with highlighted feature.	А
sdb-cba-s2	jenius.com	Jenius web application to publish information related to products, services and job vacancies.	В
sdb-csu-s3	Chatbot	An integrated and automated system to provide responses to inquiries, complaints, and customer requests without or through a Jenius agent.	N/A
sdb-cbu-s1	e-form Jenius	Applications to replace hardcopy form into electronic form, namely for opening a new account in Jenius.	В
sdb-cbu-s4	E-KYC (Jenius)	Applications that are used to record customer data from the face-to-face process between bank officers and customers at the time of opening a new account.	В
sdb-csu-s1	CMS Infinitium	CMS Infinitium is a payment system product designed for banks, to provide comprehensive verification and authentication capabilities for Card-Not-Present (CNP) transactions using 3D Secure 1.0 and 3D Secure 2.0 in one platform. Authentication for payments, especially for CNP such as E-commerce, M-commerce and MOTO (Mail Order Telephone Order).	N/A
sdb-csu-s2	WhatsApp for Business	Whatsapp account for business for BTPN	N/A
sdb-uti-s1	J2 Admin	Web application that is used to perform variety of Administrative and Configuration tasks for Jenius App.	
sdb-ids-s2	Portfolio Management System	The application automates the implementation of the credit policy strategy for flexy cash: Authorization Strategy, renewal, Limit management, and customer block code from what was originally done manually using SAS to be processed by PCCM. And the application aggregates data on the data variables needed for the strategy from what was originally provided manually by MIS/IT to be processed by PCCM.	В
sdb-cba-cl11	AppBot	An online platform that makes it easy to analyze customer comments and understand customer experiences.	N/A
sdb-cba-cl10	AppsFlyer	Application for analyzing Jenius customer behavior.	N/A
sdb-cba-cl5	Bitbucket	Application that Holds the source code of the Jenius application.	N/A
sdb-cba-cl8	Bugsnag	Application error reporting (Development Phase). Jenius mobile apps notification services and dashboard.	N/A
sdb-cba-cl16	Firebase	The application is used to send notifications based on the registered device-ID through the Jenius application (in-app notifications).	N/A

Classification: Internal 11 / 13

sdb-cba-cl6	Jenkins	Application that connecting the process from source code which done by the developer to the tests conducted by the QA team.	N/A
sdb-cba-cl12	MailChimp	Application used to send email blasts to Jenius customers.	N/A
sdb-cba-cl13	NeverBounce	Realtime customer email verification service application and email cleaning service is inactive.	N/A
sdb-cba-cl14	New Relic	Application to monitor the performance and constraints of the Jenius system.	N/A
sdb-cba-cl17	Nexmo	Application to send OTP SMS (only for onboarding customers) to Jenius customers.	N/A
sdb-cba-cl18	SKEDDA	Application that is used to record the schedule of room usage that will be used by the Jenius team.	N/A
sdb-cba-cl9	Slack	Application is used for Jenius internal communication.	N/A
sdb-cba-cl4	SmartSheet	Application that functions as a project management system for non app projects.	N/A
sdb-cba-cl7	Surge	Application that allows developers to present Web applications (Internet Banking) to the QA team for testing.	N/A
sdb-cba-cl2	TestRail	Application used to collect test results and test cases conducted by the QA team.	N/A
sdb-cba-cl1	Typeform	An online platform that can assist in the improvement of suggestions from respondents selected as Jenius's improvement material. Used to make online surveys and assist in gathering insights and feedback from Jenius customers.	N/A
sdb-cba-cl3	Zeplin	Tools used by the UI / UX Team to create screen designs that will be implemented in the Jenius application.	N/A
sdb-ids-s1	SAS Office Analytics Server	Application to conduct analytics including gather, prepare and manage data, perform meaningful analyses and easily share results using familiar Microsoft Office applications – Excel, Word, PowerPoint and Outlook email.	В
sdb-inf-s1	Min.lo	A system for storing files (object storage) to support Jenius Apps Services	TBD
			TBD
dlen-cbu-s1	Real Time Decision Engine	Bank wide system to automate credit decisioning process by implementing realtime credit scoring, policy, and rules for bank's loan product	В
dlen-cbu-s2	Digital LOS	Bank wide digital loan originating system that automates loan application and underwriting process. This application is built on the top Outsystem platform using BPT component.	А
bnk-cba-s4	Credit Card Core System	A Credit Card Core system supports Bank Card Processing, as an issuer. The system able to administer card-related data for BTPN include and not limited to account enrollment, card creation, card personalization	A

Classification: Internal 12 / 13



Classification: Internal 13 / 13