“ENHANCING TNB SUPPORT SERVICES USING POWERBOT”

TNB ICON Hackathon

14 Dec 2017 – 15 Dec 2017

By Enovade Sdn Bhd

Value Proposition

Deployed Chatbot solutions to existing customer

- Siti@1MOCC (launched on 6/12/2016).
- **SmartSelangor COOL**
- **Riadagang**

First to market. Bahasa Melayu NLP in collaboration with Universiti Malaya

- Krispi NLP

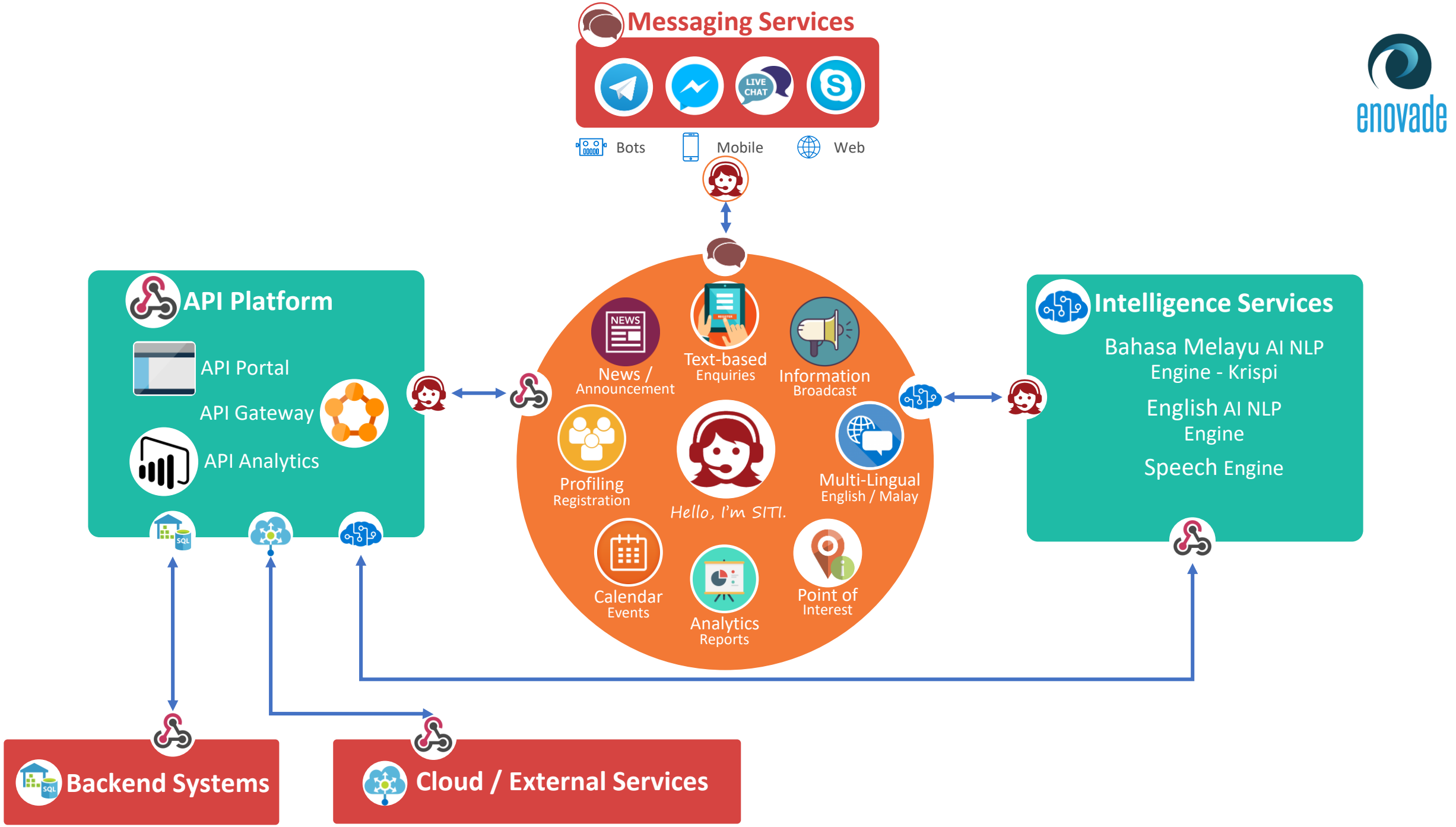
Experienced in developing integration solution for various platform e.g.

- Microsoft Dynamic CRM
- SugarCRM
- **Freshdesk**
- **Cloud APIs**

Gold Cloud Productivity competency with experienced deploying multiple cloud projects.

Dedicated support personnel for Siti. 100% local support.

Experienced in working with corporate and government agencies.


Messaging Services
LIVE CHAT
Bots
Mobile
Web
API Platform
API Portal
API Gateway
API Analytics
NEWS
News / Announcement
Text-based Enquiries
Information Broadcast
Profiling Registration
Hello, I'm SITI.
Multi-Lingual English / Malay
Calendar Events
Analytics Reports
Point of Interest
Intelligence Services
Bahasa Melayu AI NLP Engine - Krispi
English AI NLP Engine
Speech Engine
Backend Systems
Cloud / External Services
enovade

PowerBot Demo

Judging Criteria 1/3

	Functions	Descriptions	Remarks

10%	Infra flexibility	• Hosting – On premise or on cloud.
		• Requirement specification on infra side (server, storage) will be required if hosted on premise.
			• Hosting – hybrid
			• For on premise, 2 x Physical servers with the following config:
			  • 16 x Intel® Xeon® CPU @ 2.70GHz
			  • 128GB RAM
			  • 2 x 300GB HDD

15%	Local support availability	• Availability of local technical support.	• Incorporated in Malaysia since 2004 • **100% local support**

15%	Easiness of Integration and support	• Able to integrate with enterprise-wide systems used by TNB.
		  • Eg: Oracle, SAP, PHP, .NET, Cisco, SOA Web Service/API
		• Integration support on common platforms:
		  • Mobile Messaging (WhatsApp, Wechat, Telegram)
		  • Web Integration.
		  • Mobile Application
			• Integration with enterprise-wide systems used by TNB using Web Service / API via **API Management USC (Universal Service Connector)**
			• Integration with **myTNB portal** via **AINI (Artificial Intelligence for Native Interface)**
			• Support **WhatsApp, Wechat, Telegram, Webchat and Mobile Apps (via IFRAME)**

Judging Criteria 2/3

	Functions	Descriptions	Remarks
25%	AI Ability	• Understand common and complex, contextual sentences – not just searching through keywords	• Via **UM Krispi NLP** using **graph-based partition distance measure algorithm**
		• Personalization – Interpreting language and ability to recognize and profile customer, and addressing customer by their personal preferences	• Via personalization module
		• Voice recognition / conversational ability – recognize voice, and reply back via audio speech	• Via webchat – integration with **Speech AI** and **UM Krispi NLP**
		• Document and image processing – ability to read and understand documents and images, OCR etc	• Via **Image AI** to process myKAD
		• Other features – such as sentiment, emotion analysis and escalate to human agent if and when required.	• Via **Text Analytics AI** to detect sentiment and escalate to human agent for negative sentiment

Judging Criteria 3/3

	Functions	Descriptions	Remarks
15%	Type of Language	• Support English, Malay, Mandarin, Tamil Language • Social media/messaging lingo (short forms, acronym etc.)	• Support **English** and **Malay** language • Support Social media/messaging lingo (short forms, acronym etc.)
15%	Bot Training/ Program	• Ease of training (complexity to train the AI, time taken, technical knowledge needed to train the bot) • Method of AI training (eg: Programming, Rules Based, Document). • Supervised and Unsupervised learning (Ability of bot to self learn).	• Bot Training via web portal • Method of AI training –from zero to hero approach • Fully unsupervised learning with validation
5%	Overall presentation		

Q&A