SONiC Integration:
Indicative Engineering Services Proposal

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ABSTRACT

PROJECT OVERVIEW

Integration of the Client's hardware product, a network switch, with SONiC, a highly popular open source NOS for routers and switches.

SCOPE OF WORK

The following list of sub-projects is proposed as a reference to fill in the Product Backlog:

- SONiC NOS porting on top of XXX SAI implementation for XXX switch;

- Adaptation-extension of the SAI component to meet the functional requirements of SONiC implementation;

- Bring-up of SONiC implementation on XXX switch;

- Platform/BSP integration (the list of drivers, features to be agreed with the Client);

- SONiC community testing coverage (the list of community tests to be agreed with the Client);

- Testbed bring-up;

- Documentation development.

EXPERTISE AND SKILLSET

Overall project management and execution, communication with the Client, risks management, people management, team staffing, responsible for the fulfillment of all obligations and fulfillment of the contract.
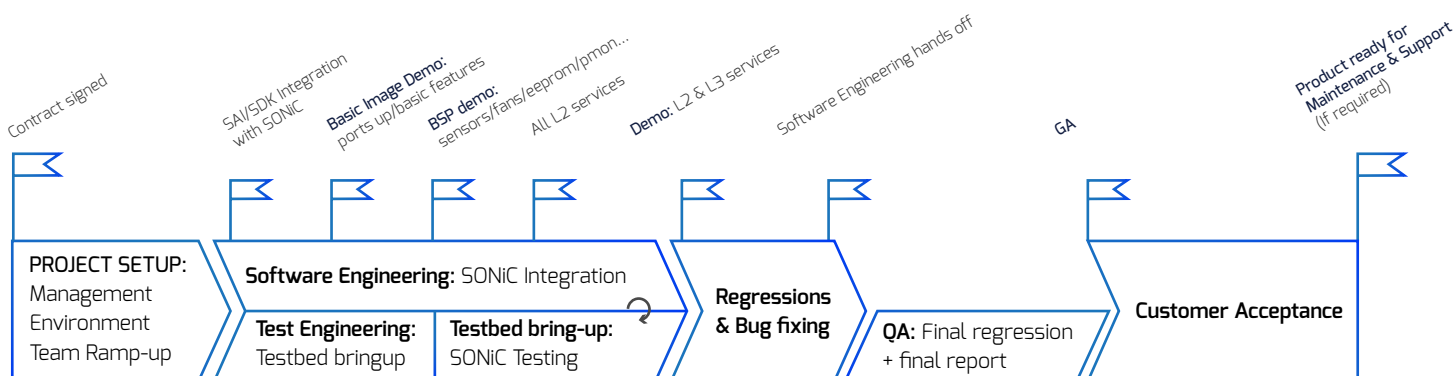
Strong skills in:

- C/C++ programming
- Python programming
- L2/L3 Networking
- System programming
- Troubleshooting and debugging
- Open Source Software Development

Strong Experience in Make/Automake build tools; Familiarity with git, Gerrit, JIRA/Confluence; Performance benchmarking and optimization.

Python, scapy, bash, pytest, test framework development, Ansible, L2/L3 protocols, Linux administration, VM, Linux, Docker, CI/CD, Jenkins, Jira, Standard Test Documentation

PROJECT WORKFLOW

Contract signed — SAI/SDK Integration with SONiC — Basic Image Demo: ports up/basic features — BSP demo: sensors/fans/eeprom/pmon… — All L2 services — Demo: L2 & L3 services — Software Engineering hands off — GA — Product ready for Maintenance & Support (if required)

PROJECT SETUP: Management Environment Team Ramp-up

Software Engineering: SONiC Integration

Test Engineering: Testbed bringup

Testbed bring-up: SONiC Testing

Regressions & Bug fixing

QA: Final regression + final report

Customer Acceptance

This image is just an abstract represantative of project milestones. Do not treat distances as a scale for milestone durations.

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D E L I V E R A B L E S

DEMO	MILESTONE	DETAILED DELIVERABLES
-	**Project Setup**	• Project Management Governance Setup • Development Environment Setup • Team Ramp-up
Basic Image Demo	**Testbed bring-up**	• Testbeds config files in SONiC mgmt repo • Scripts for switch topologies
	SAI/SDK integration	• Github pull requests/commits/patches with platform Makefiles / defaults config files / SAI patches
	Basic ports config and features bring-up	• Github pull requests/commits/patches for config file changes / SAI patches • Github pull requests with fixed/adjusted SONiC community automated test cases • Testbed bring-up documentation
BSP Demo	**Sensors/fans/eeprom/ pmon services bring-up**	• Github pull requests/commits/patches for plugins / config file changes • Github pull requests with fixed/adjusted SONiC community automated test cases
L2 & L3 Services Demo	**L2, L3 services support bring-up**	• Github pull requests/commits/patches for config file changes / SAI patches • Github pull requests with fixed/adjusted SONiC community automated test cases
-	**GA**	• Github pull requests with platform Makefiles / defaults config files / SAI patches • Final manual platform tests report on Confluence • Final version of SONiC integration guide (SAI integration, compilation, features summary and description) • Testbed bring-up details • Test Plan • Manual SONiC tests steps • Platform test steps and results • Test procedure • Testbed Source code

If you have questions, get in touch:
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