



Company, Products and Project Updates

April 1st, 2019

PacificTeck Singularity Workshop – Tokyo, Japan

This presentation might contain confidential and forward looking statements regarding operations, product development, product capabilities and availability. Statements contained in this document reflect Sylabs plans as of the date presented, these details are subject to substantial uncertainties and change at any time, without prior notification.

ABOUT



Sylabs provides **licensing**, enterprise level **support**, professional **services**, **cloud** functionality, and value-added **plugins** for the **Singularity** container runtime

1. Sylabs also drives the development efforts of the **Open Source Singularity Project** to support **compute driven workflows**, such as in **Artificial Intelligence**, **Security** and **Data Science** fields

ABOUT



Singularity is a **widely-adopted open source container runtime** that implements a **unique security model**.

Designed to **mitigate privilege escalation risks**, and provide a platform to capture a complete application environment into a **single file**

The Ecosystem

ORIGINS

Scientists were seeking to achieve greater **reproducibility** and **mobility**

and then Gregory Kurtzer created...

Singularity

GROWTH OF EPC



Increasing demand for **application-based** containers

Market growth \$4.98B by 2023

- *MarketsAndMarkets*

OSS --> PRO

From Open Source to

SingularityPRO

Historical View of SingularityPRO

- 2.4 (*February 2018*)
- 2.5
- 2.6.2 stable and current release

Introducing:

SingularityPRO 3

Available soon



What are the benefits of licensing SingularityPRO ?

Enterprise Grade Support

- Sylabs sponsors and productizes Singularity, and are uniquely qualified to provide the top tier of support
- Sylabs also employs members from the open source developer community

Backporting of Fixes

- Sylabs provides bug and security backports in SingularityPRO versions. Open Source development moves fast
- Sylabs has defined lifecycles for SingularityPRO, this allows customers to plan for software refreshes and upgrades
- Mission critical systems need long term supportability. Unsupported software can result in material business losses and therefore product stability is critical

Feature Development Influence

- We work with customers to clearly understand their needs and use their input as a guide for feature development and release roadmaps
- Subscriptions are a cost-effective method of seeing those features included in a release

Extra Functionality

- Customers can influence development and priorities
- The Singularity Plug In architecture is an ideal place to have Sylabs develop custom functionality for specialized hardware devices, network, interconnects, FPGA and new device platforms
- A subscription includes higher tiers of access to Cloud version of Singularity Container Services, and access to On-Premise versions

Sylabs

Singularity Container Services (SCS)

Sylabs



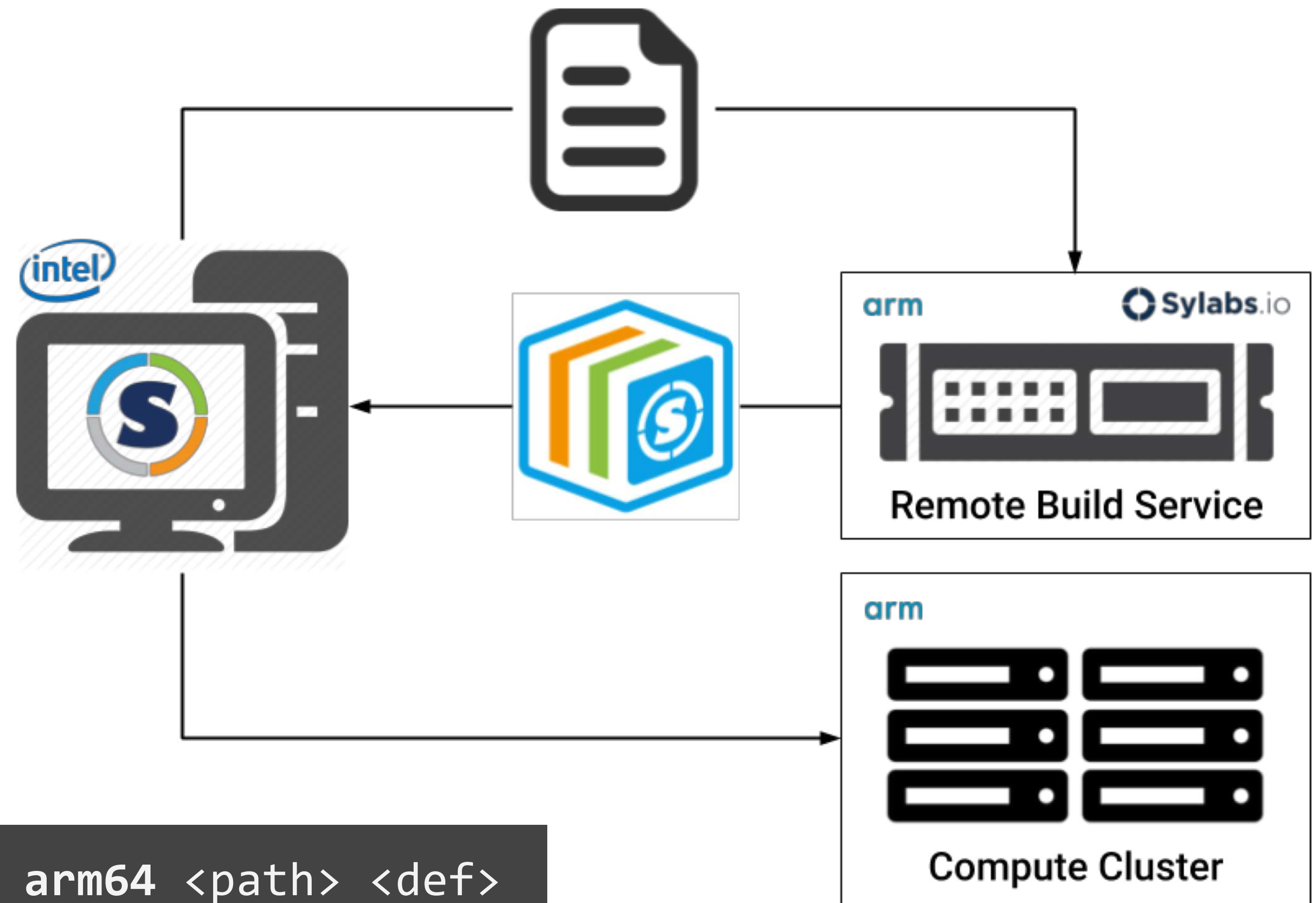
Singularity Container Services: Extending the container ecosystem

- **Key Management Platform** to cryptographically validate signed images, provides management, storage and distribution of PGP public keys
- **Container Library** will provide a centralized storage and management capability for signed and encrypted SIF files
- **Remote Build Services** will provide a platform for users to create secure compliant SIF images without requiring privilege escalation

<https://cloud.sylabs.io>

Remote Build Service

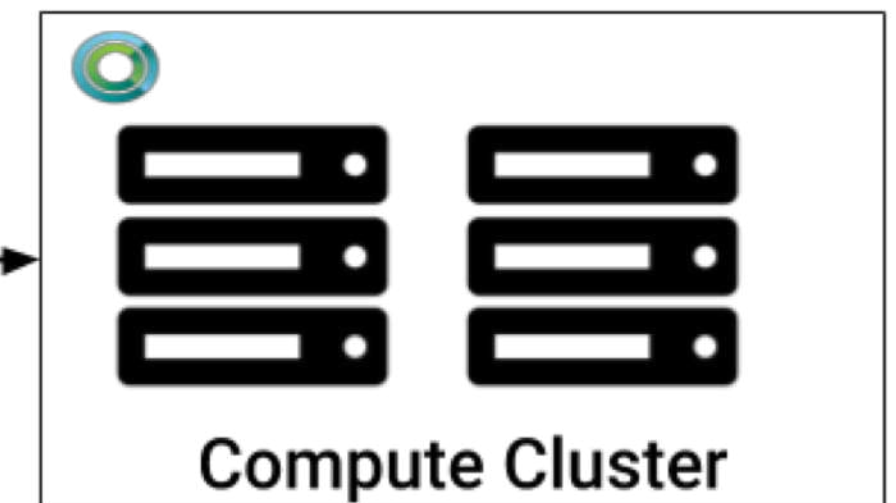
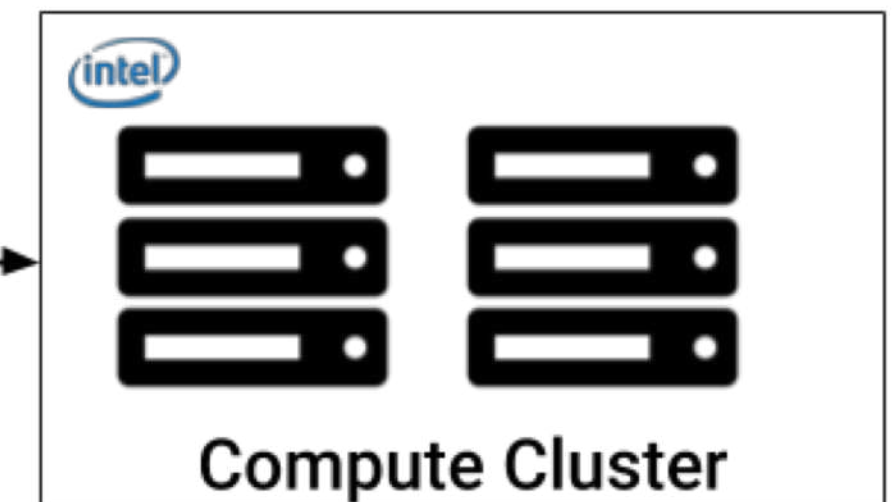
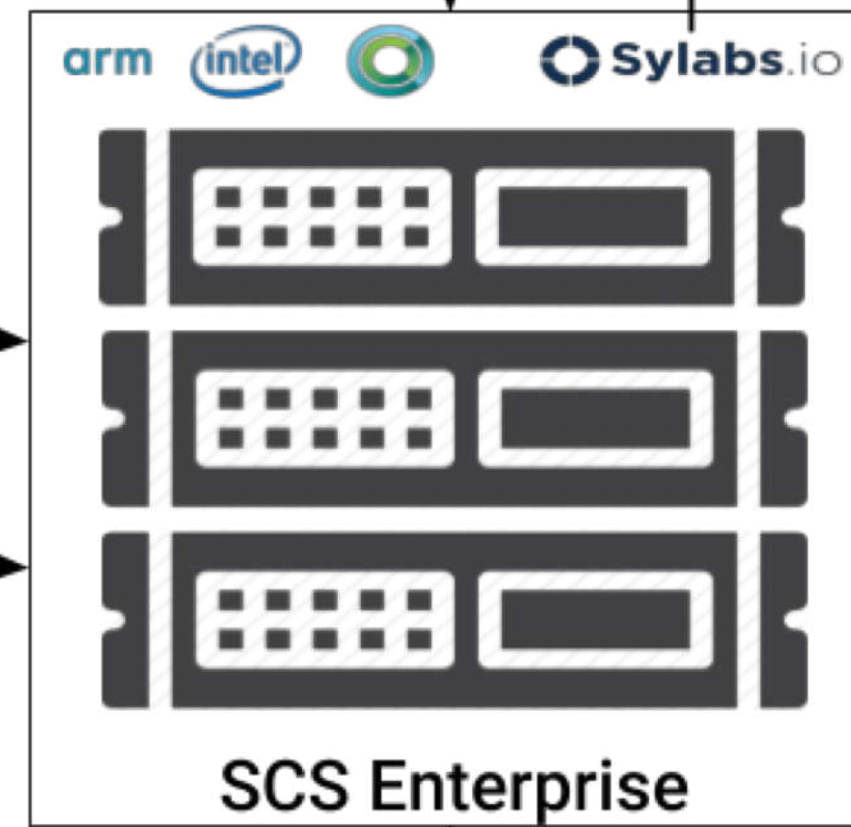
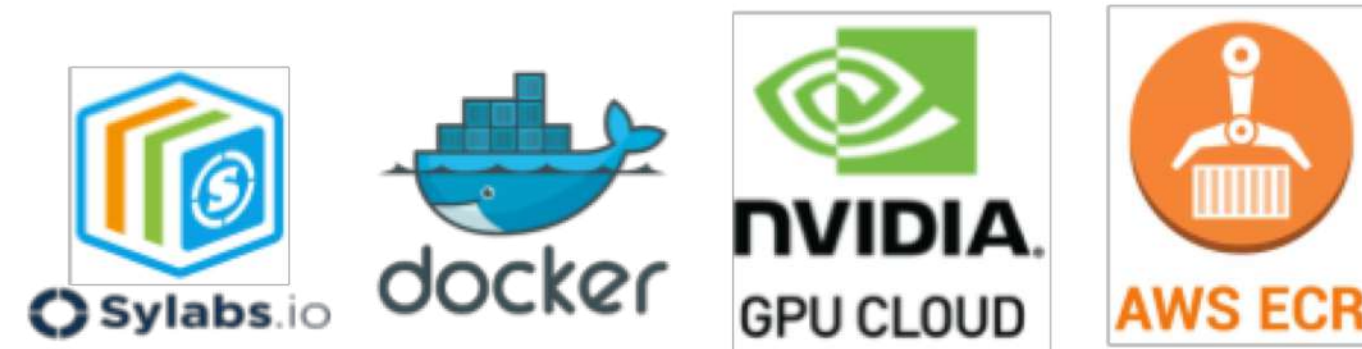
Build for architectures such as ARM and POWER



```
$ singularity build --remote --arch arm64 <path> <def>
```

Singularity Container Services

Source images from existing public and private registries



Build, Store, and Secure

Open Source Stewardship

Sylabs is committed to the success of
our open source projects and the
community

STEWARDSHIP

- All Singularity features, development and advances will always be contributed first and foremost, to the public open source development repositories
- Gregory and the members of the Sylab's team is committed to building on the foundation of the open source community. Greg is not only the founder of Singularity and CEO of Sylabs, he is also the founder of several other open source projects including CentOS and Warewulf
- Sylabs will be successful via the joint partnership of the open source community, Sylabs employees, Service Partners, development partners, and more importantly the customers who build and trust their infrastructures on Singularity



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