# Connected Research - KDD Google Cloud Software Delivery Shield

## DACI Decision

| | |
|---|---|
| **Status** | REJECTED |
| **Impact** | This decision affects the development process and to a great degree the tools, that should be used by the LabBooster team. |
| **Driver** | KRONTIRAS-ext, Pavlos |
| **Approver** | KRONTIRAS-ext, Pavlos |
| **Contributors** | |
| **Informed** | Roscetti, Nicolas MENGHETTI, Matteo SIMAO-ext, Vitor |
| **Due date** | |
| **Outcome** | Will not proceed with general implementation at this time. Decision made on 13 Dec 2024 |

## Tips and info

**Recommendations**

**Contributors**

*Contributors: I am seeking the right people to get involved in the decision. Add your comments to this page, let's get the conversation started.*

*Please add:*

- ***The people** directly impacted by this so we can include them.*
- ***Any references** to previous work and investigations that we can leverage.*
- *Any **constraints and challenges** we need to consider to make this decision and following action plan.*

**Impact rating**

Here's an example you can use as a guide.

| Decision characteristics | |
|---|---|
| • The decision will have a material impact on the customer experience OR<br>• will significantly impact the roadmap OR<br>• will adversely disrupt an internal business process. | HIGH |
| • The decision will involve a less than material change to customer experience OR<br>• will impact the roadmap OR<br>• will impact an existing internal business process | MEDIUM |
| • All other decisions | LOW |

## Background

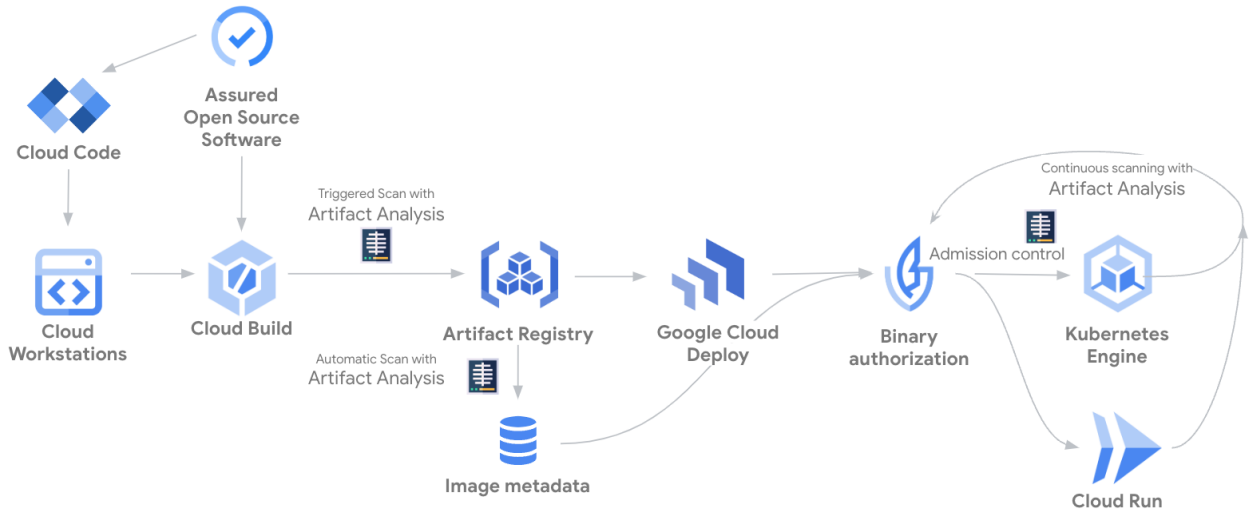
The Google Cloud Software Delivery Shield is a set of tools and services that offer a secure cloud-hosted development environment with end-to-end security built-in, that prevents any unauthorized code or data exfiltration from the organization's GCP estate.

## Current state

All development is done locally on individual computers with full access to upload/download files and data.

## Data for decision support

High level Architecture of GCP Software Delivery Shield




## Options considered

| | Option 1: Do nothing | Option 2: Use GCP Software Delivery Shield |
|---|---|---|
| **Description** | No change | Implementing this framework will require the activation and use of several new GCP tools & services and will change the current development and software build and delivery processes. |
| **Rollout plan** | No change | • Request new development GCP project in Syensqo landing zone with all required APIs and network configurations enabled<br>• Create Artifact repositories for source code management and Assured Open Source Software<br>• Create development VMs with necessary software tools installed<br>• Create build pipelines<br>• Test and validate framework<br>• Create user documentation<br>• Scale up the rollout to developers |

| | | |
|---|---|---|
| **Pros and cons** | ⊕ No change to current development process<br><br>⊕ No additional cost or effort required<br><br>⊖ Higher on-boarding time for new team members<br><br>⊖ Potential for lost time and inefficiencies due to development environment<br><br>⊖ Continued security risks & inefficiencies | ⊕ Secure development with validated secure 3rd party libraries and automatic scanning of containers for security vulnerabilities<br><br>⊕ Digitally signed containers for verifiable build provenance<br><br>⊕ Prevents data loss/exfiltration by enforcing a security perimeter with resources contained within GCP<br><br>⊕ Standardizes development environment and tools, minimizing errors and lost time troubleshooting problems due to misconfiguration or configuration differences<br><br>⊕ Accelerates on-boarding time for new team members<br><br>⊕ Potentially reduces hardware costs with reduced performance requirements for developers' physical hardware<br><br>⊖ Requires fast and reliable Internet connectivity<br><br>⊖ Increases GCP consumption costs with use of new tools & services<br><br>⊖ Would require additional GCP skills to support framework<br><br>⊖ Libraries currently in use in DataLab code may not be security validated<br><br>⊖ Introduces a completely new development process<br><br>⊖ May require significant amount of time to deploy, validate, and rollout<br><br>⊖ May not be easily transferable to other cloud platforms, e.g. Azure |
| **Risks** | • Continued risk of data exfiltration<br>• Continued risk of including security vulnerabilities in delivered product | • Resistance from developers that want to maintain their own independent development environment<br>• Additional costs are not acceptable<br>• Skills are not available in team to support the framework |
| **Estimated cost and effort** | | |

## FAQ

Q1.

A1.

## References

| Relevance | Link |
|---|---|
| Official documentation of the GCP Software Delivery Shield | https://cloud.google.com/security/solutions/software-supply-chain-security?hl=en |
| Review of test implementation | |
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| | |

## Follow-up action items

- [ ]

Learn more: https://www.atlassian.com/team-playbook/plays/daci