**Project Definition**

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| Background | Objectives |
| Docker has released a new version of Swarm with promising capabilities to allow clustering of Docker instances. | The Project Should allow:   * Automatic healing in case of instance loss. * Seamless scaling on demand (manual and/or automatic) * Easy visibility of status of clustering. * Alerting on appropriate issues. |
| Desired Outcomes | Project Scope & Exclusions |
| Increase the resiliency, maintainability, and scalability of services within Content Discovery. | The project scope is the clustering of Docker based components within Content Discovery, and any supporting apparatus that is needed to monitor and administer that clustering. |
| Constraints & Assumptions | Project Tolerances |
| * A maximum of two Associate Devops Engineers will be assigned full time. * The project will run for 4 months. * A Devops Engineer or Senior Devops Engineer will be available for consultation and approval. * Technology must comply with CD SRE standards, and new technology must receive managerial approval. * All pertinent CD SRE policies and procedures must be followed. * Organisation of work will be done via Scrum. | The Project goes into exception when there it is more than a week (5 working days) behind schedule. |
| Users & Stakeholders | Interfaces |
| Primary Stakeholder is CD SRE, who will be represented in the following way:  Product Owner: David Oliveira/Peter Street | Any needed interfaces will be provided through your Supervising Engineer or Scrum-master. |

**Project Product Description**

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| Composition | Development Skills Requires |
| The framework should provide a way to deploy the clustering capability to a new deployment of a given component (or to an existing deployment if suitably easy to implement) | N/A |
| Quality Expectations | Acceptance Methods and Acceptance Responsibilities |
| The framework is expected to follow the CD SRE IaC principles. The system is expected to function as automatically as possible. The system is expected to be documented such that suitably experienced/qualified engineers are able to use and maintain it with reverse engineering it. | The project is complete in one of two scenarios:   1. The technology is found to be unworkable or impractical. 2. The technology framework is available for applications to use in Production. |

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| Project Approach | The project will be managed in-house in a simple way by the assigned engineers. The project delivery will be done through Scrum. Technology to be guided by your lead engineer and/or CD SRE. |
| Project Management Team Structure | Project Manager: Team (supervised).  Product Owner: David Oliveira Scrum-master: Peter Street/David Oliveira  Supervising Engineer: TBC. |
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