

An Introduction to Docker & Containers

Rob Earlam

April 2020

#sugcon



SUGCON
GLOBAL 2020

Donate



SUGCON
GLOBAL 2020

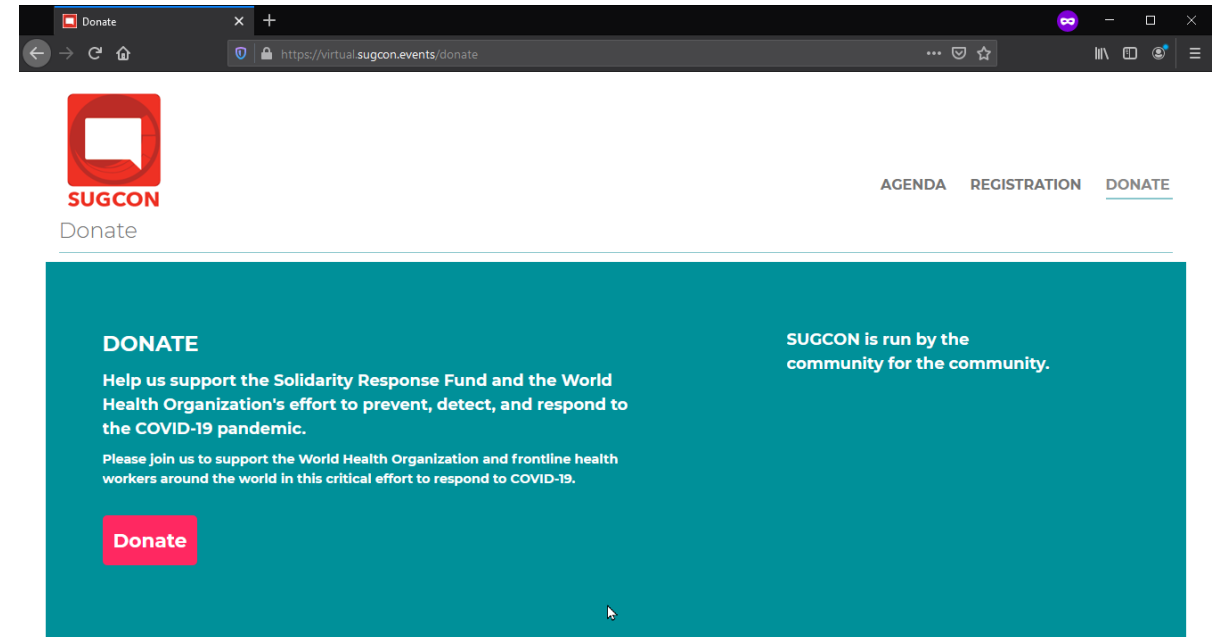
COVID-19 SOLIDARITY RESPONSE FUND

POWERED BY



SWISS PHILANTHROPY
Foundation

IN SUPPORT OF THE WORLD HEALTH ORGANIZATION



<https://virtual.sugcon.events/Donate>



SUGCON
GLOBAL 2020



Rob Earlam

Sitecore Technical Evangelist

robearlam.com

github.com/robearlam

twitter.com/robearlam

linkedin.com/in/rob-earlam/



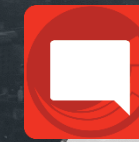
- Docker Concepts
- Sitecore Docker Image Repository
- Using Docker for Development

Docker Concepts

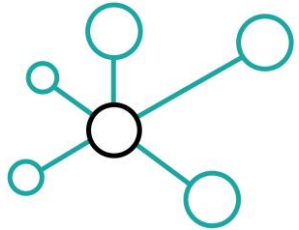


Photo by [Lucas van Oort](#) on [Unsplash](#)

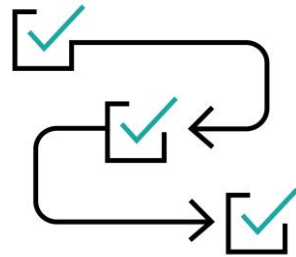
Common Issues



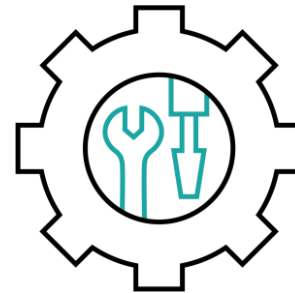
SUGCON
GLOBAL 2020



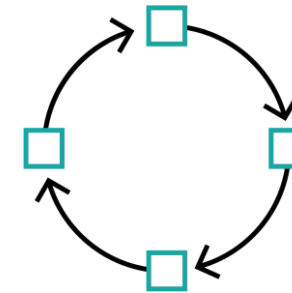
Dependencies



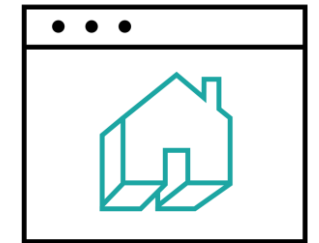
Deployments



Upgrades



Environments



Operating
Systems

Containers to the rescue!



SUGCON
GLOBAL 2020



Container

Application

Dependencies / Libraries

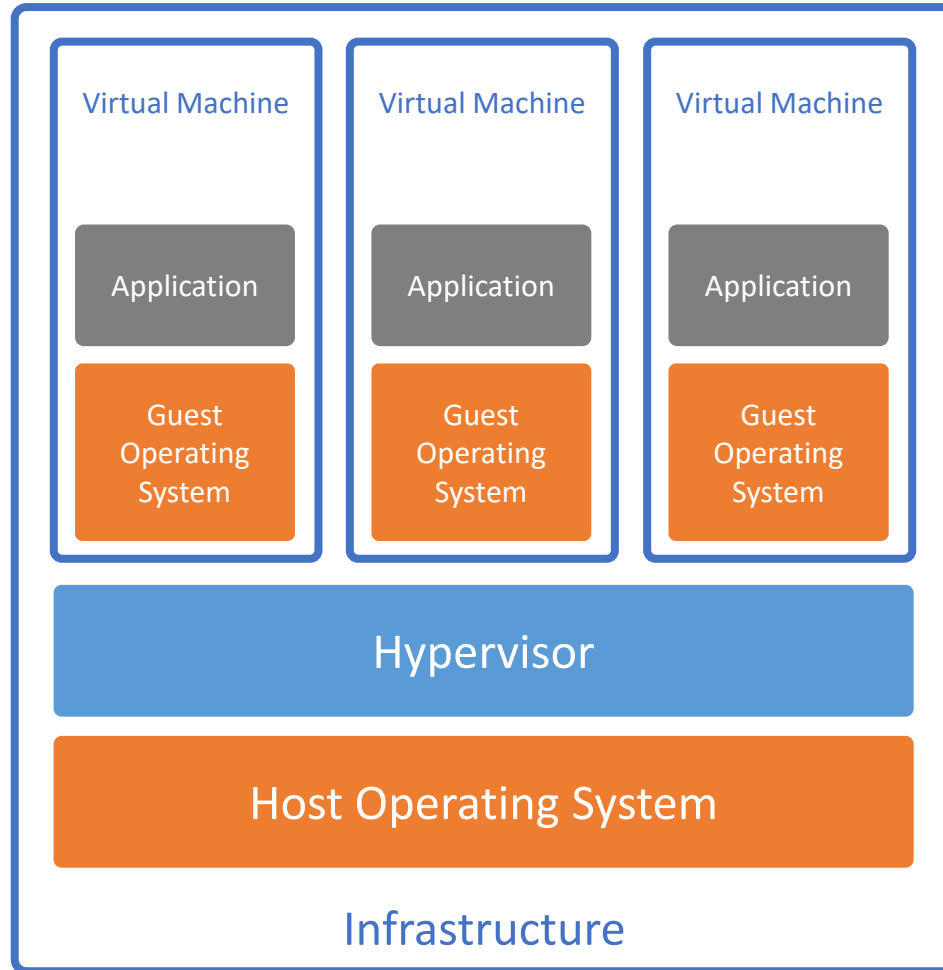
Configuration

Other requirements

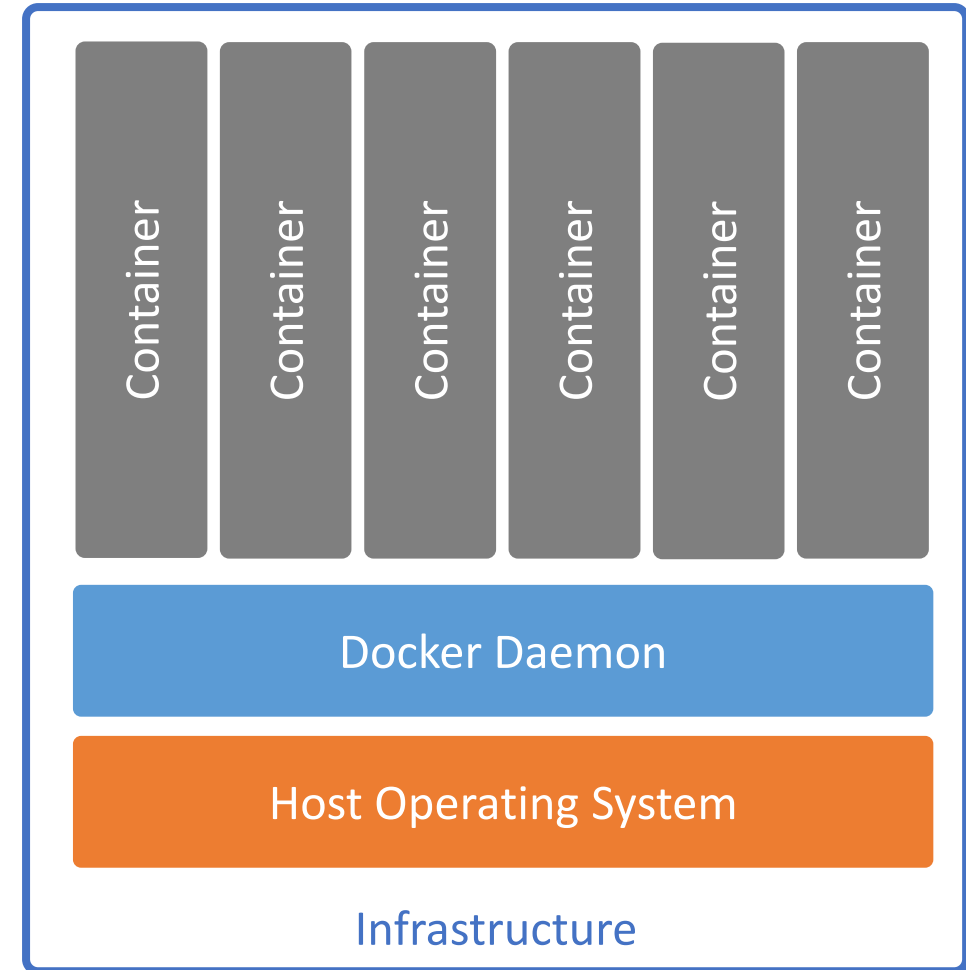
Virtual Machines vs Containers



SUGCON
GLOBAL 2020



Virtual Machines

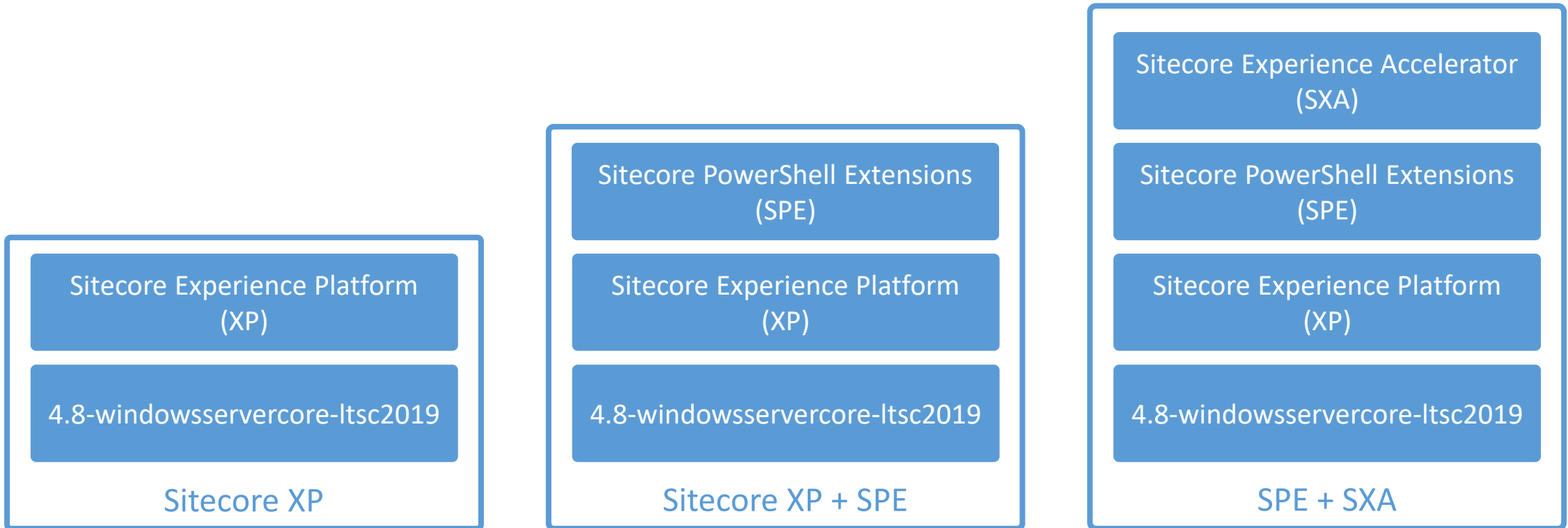


Containers

What's inside an Image?



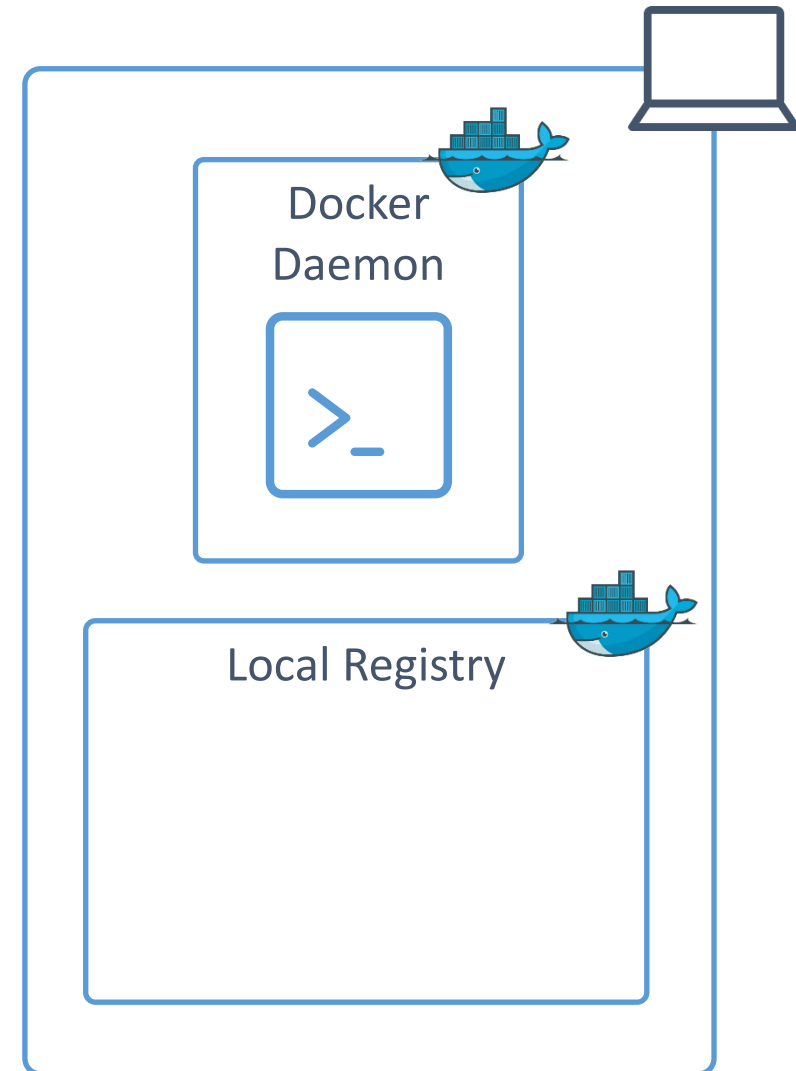
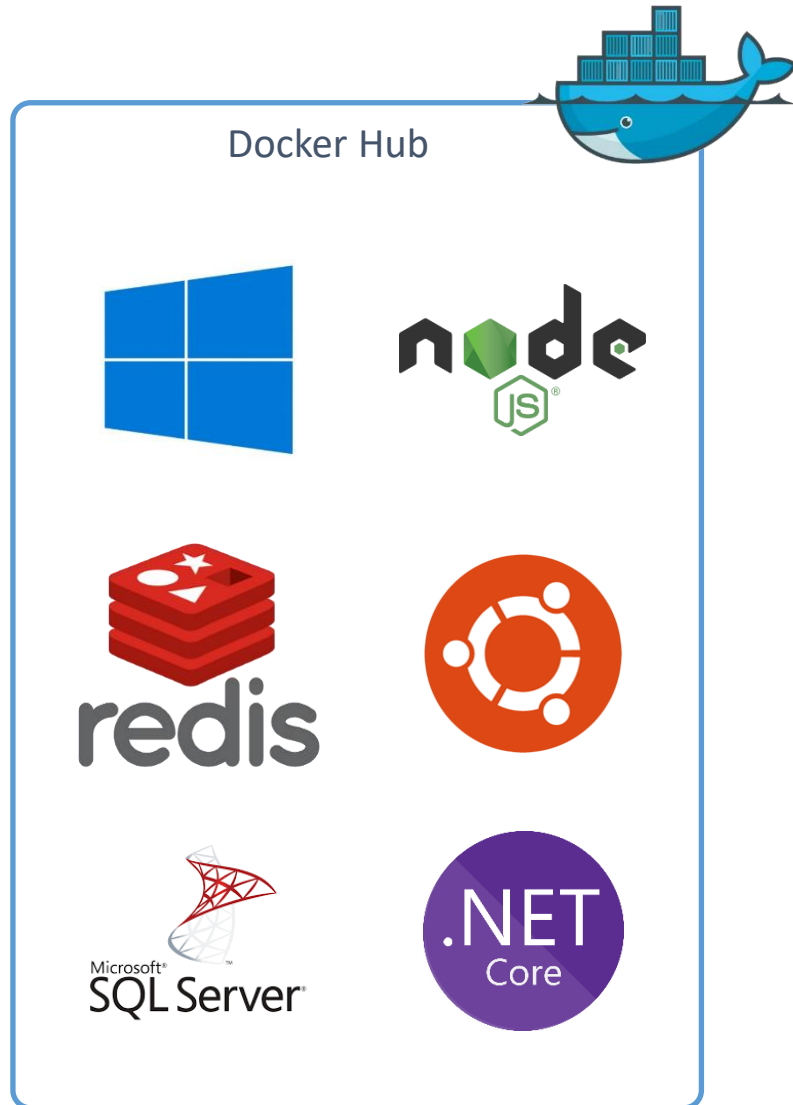
SUGCON
GLOBAL 2020



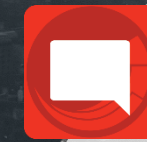
Registries



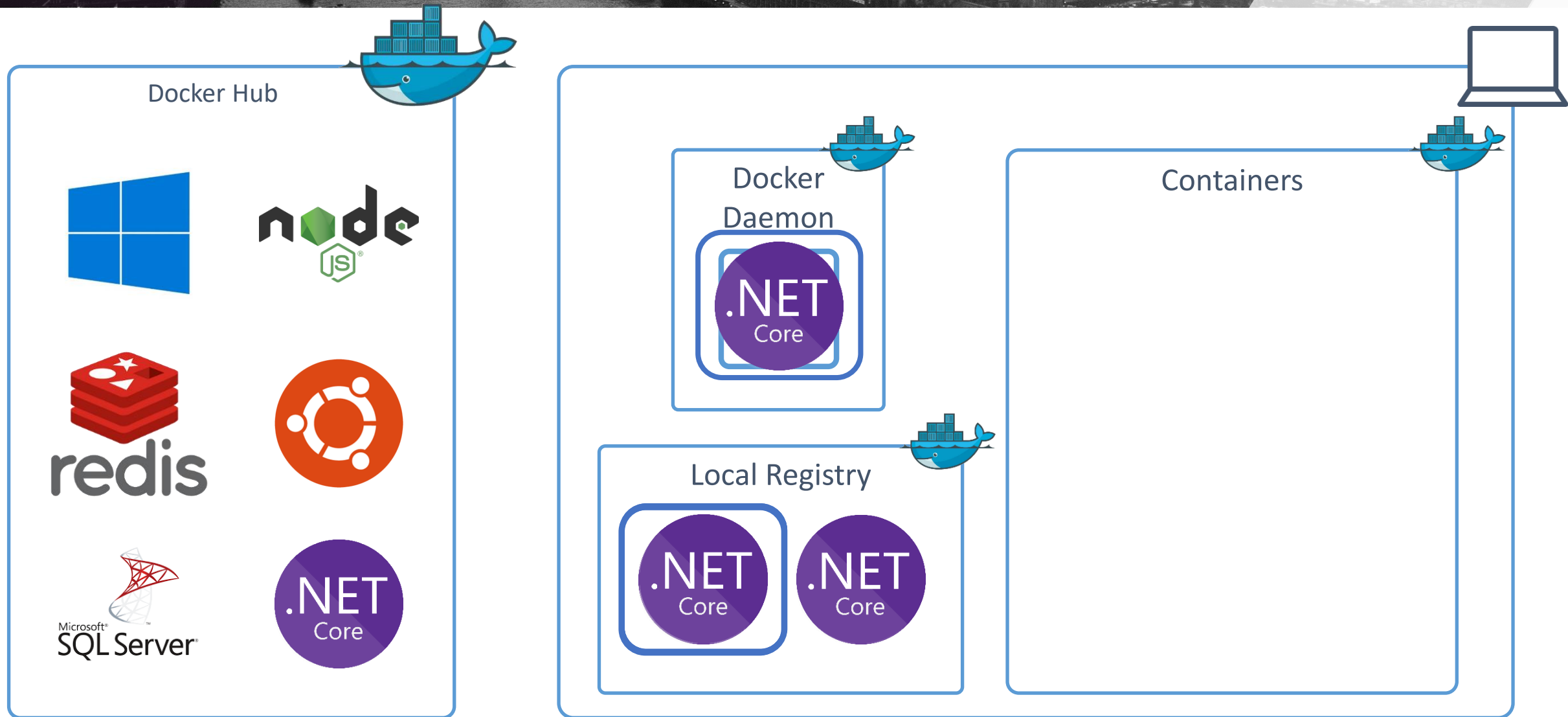
SUGCON
GLOBAL 2020



Images, Containers & Registries



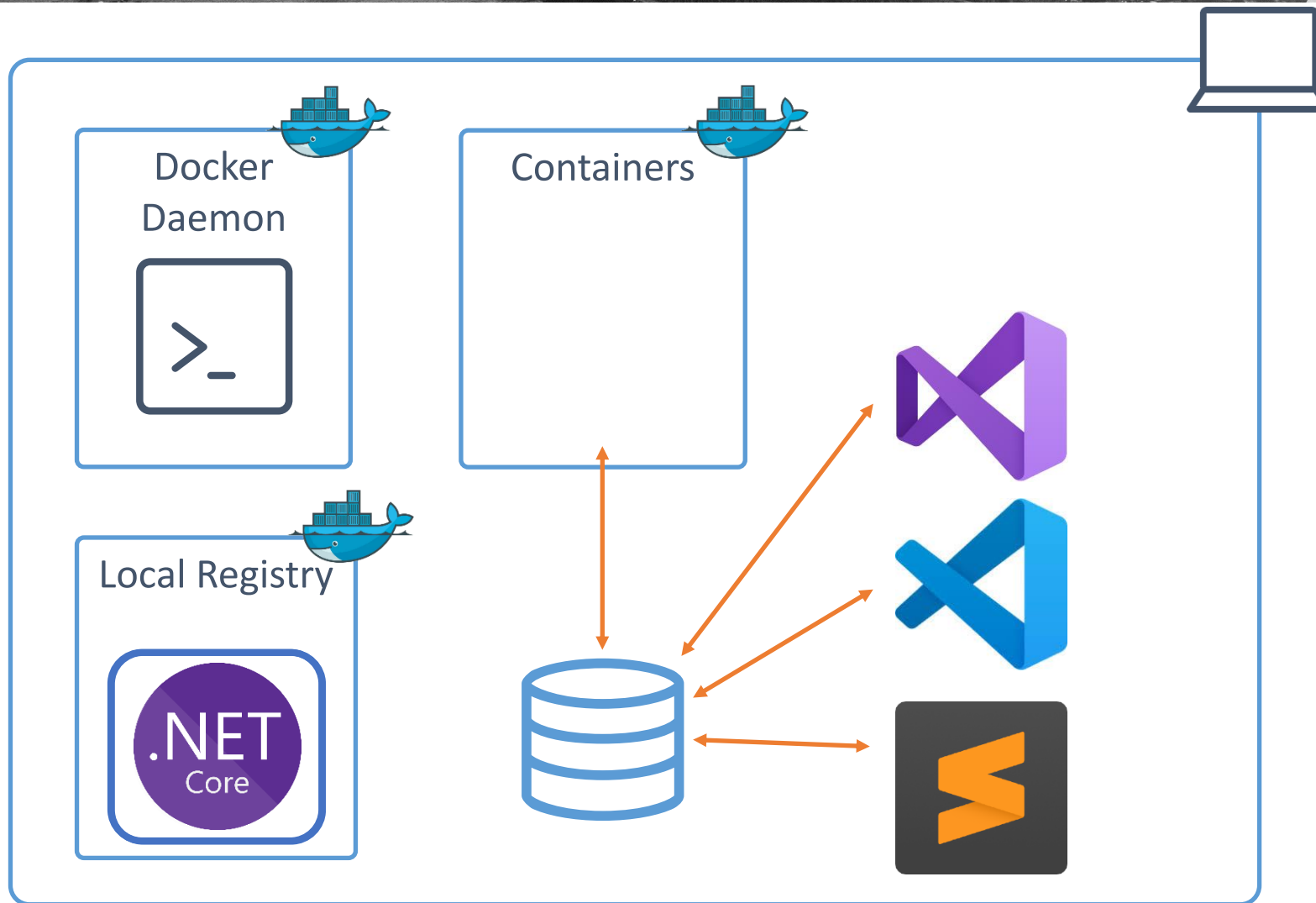
SUGCON
GLOBAL 2020



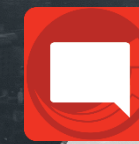
Volumes



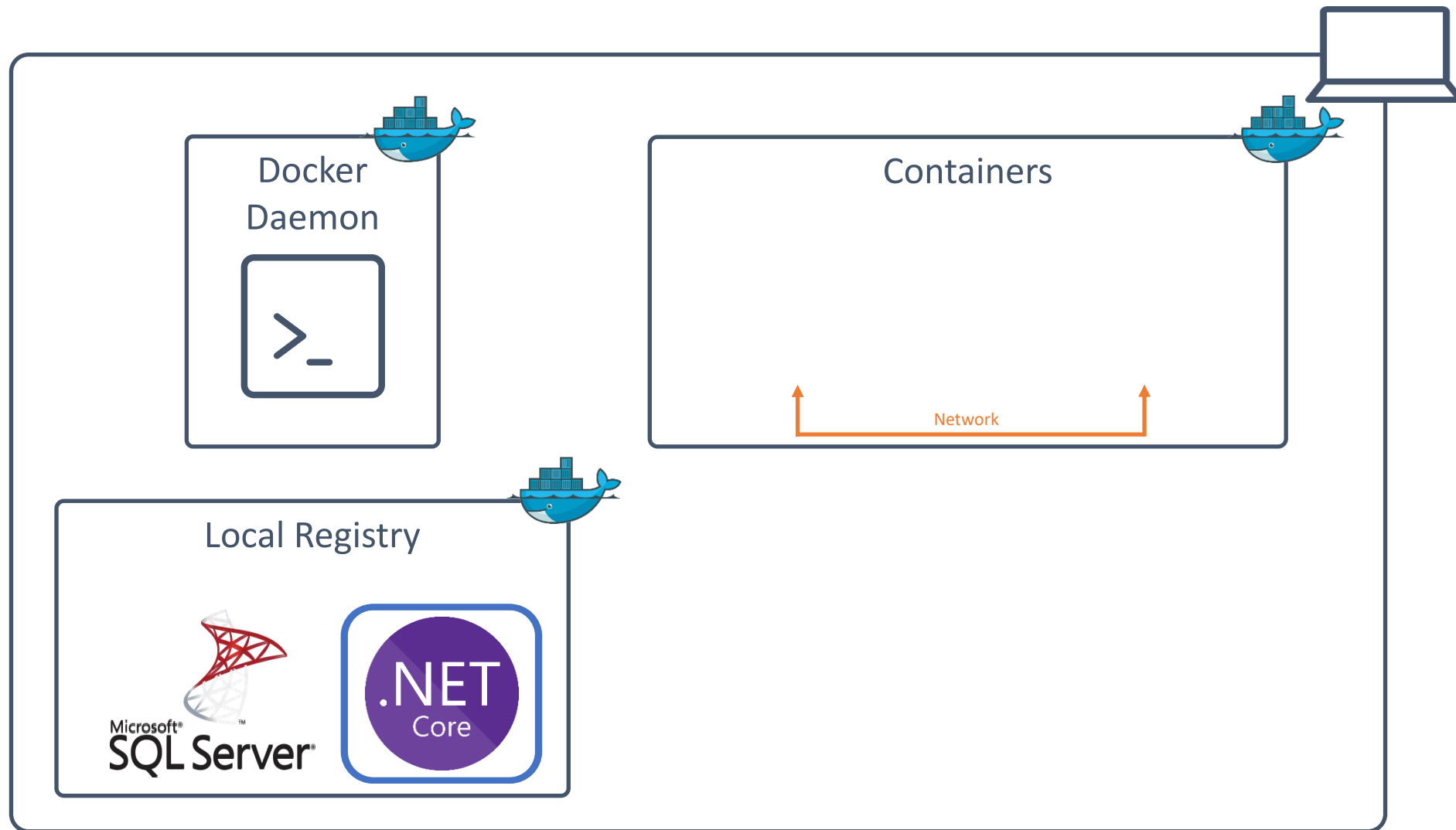
SUGCON
GLOBAL 2020



Networking



SUGCON
GLOBAL 2020



The Sitecore Docker Images Repository



Photo by [Lucas van Oort](#) on [Unsplash](#)

What is the Docker-Images repository?



SUGCON
GLOBAL 2020

[Sitecore](#) / [docker-images](#)

Unwatch releases 38

★ Unstar 106

Fork 116

<> Code

! Issues 16

🔗 Pull requests 7

▶ Actions

📁 Projects 1

📖 Wiki

🛡 Security

📊 Insights

⚙ Settings

Build docker images for Sitecore

Edit

Manage topics

📄 945 commits

🌿 5 branches

📦 0 packages

📄 0 releases

👤 28 contributors

📄 View license

Branch: master ▾

New pull request

Create new file

Upload files

Find file

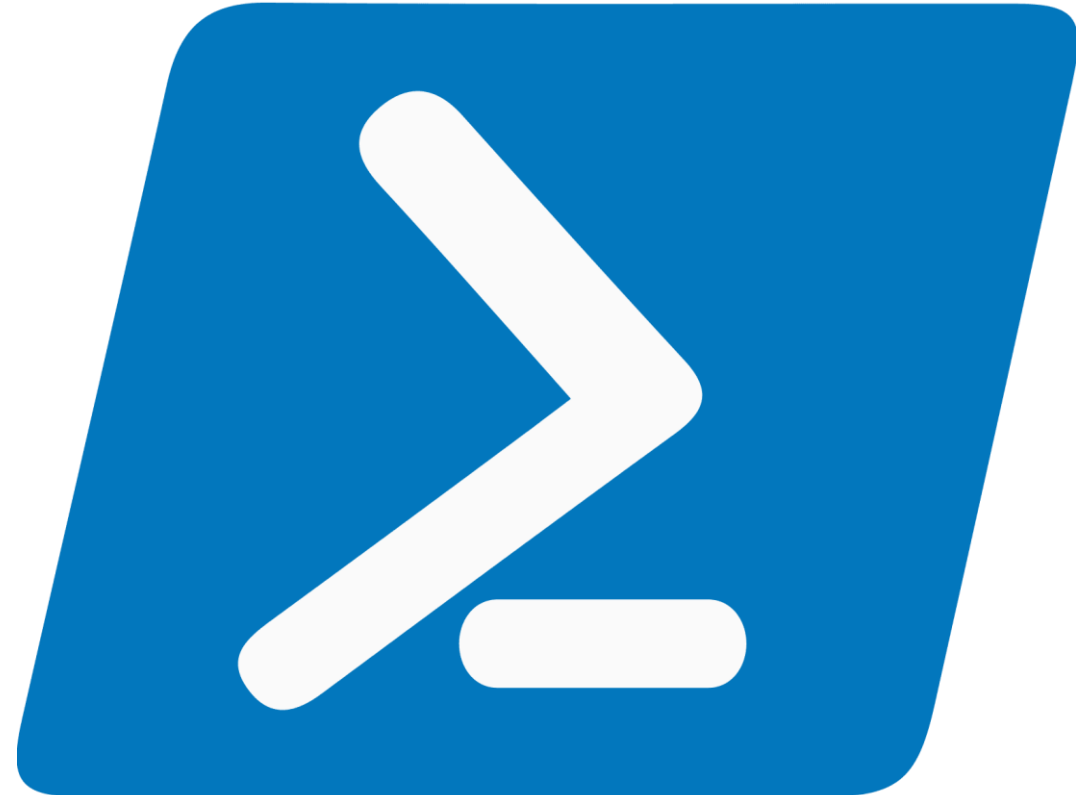
Clone or download ▾

📁 .vscode	Feature/9.3.0/publishing service 4.2 (#158)	3 months ago
📁 legacy	copy old to legacy, aligned tags with windows (no version anymore)	5 months ago
📁 linux/9.2.0	fixes #84, upgrading SPE to v6.0	5 months ago
📁 modules/SitecoreImageBuilder/1.0.0	#238 : Fixed issue with out of bounds index. (#239)	last month
📁 windows	Used the XM version of the SXA 9.3 package which is passed as ASSETES...	8 days ago
📄 .gitattributes	force git to handle md files as text	4 months ago
📄 .gitignore	Feature/9.3.0/publishing service 4.2 (#158)	3 months ago
📄 Build.ps1	#204 : Formatted build messages. (#209)	2 months ago
📄 CHANGELOG.md	Add XC 9.3.0 (#230)	last month



Build.ps1

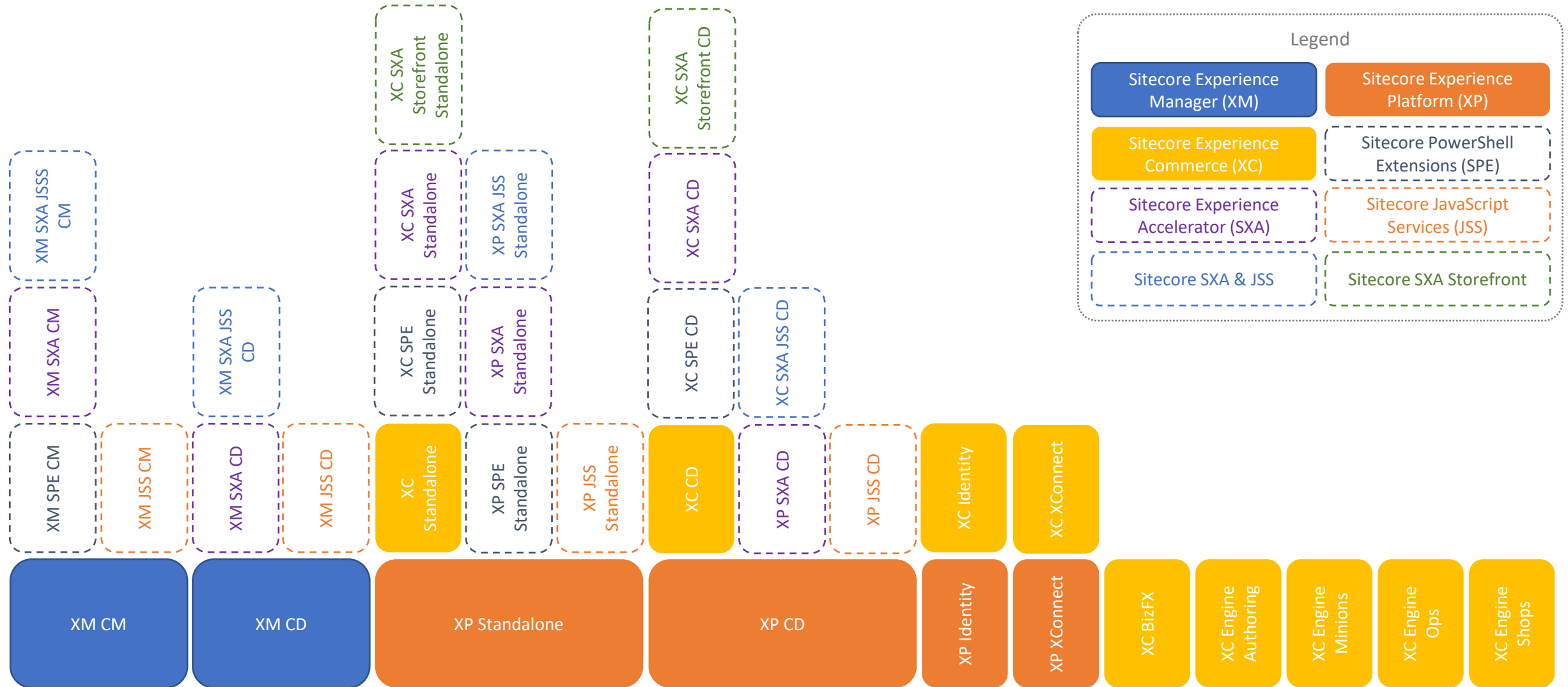
- [Mandatory] SitecoreUsername
- [Mandatory] SitecorePassword
- [Optional] SitecoreVersion
- [Optional] Topology
- [Optional] WindowsVersion
- [Optional] IncludeSpe
- [Optional] IncludeSxa
- [Optional] IncludeJss
- [Optional] SkipExistingImage
- [Optional] IncludeExperimental
- [Optional] Registry



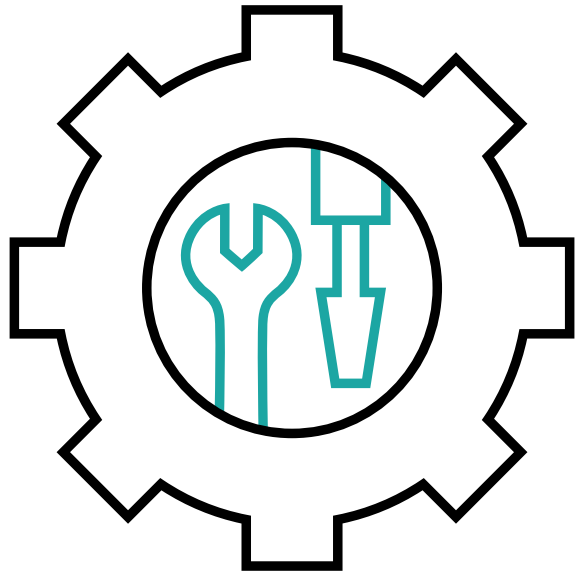
What Images are built?



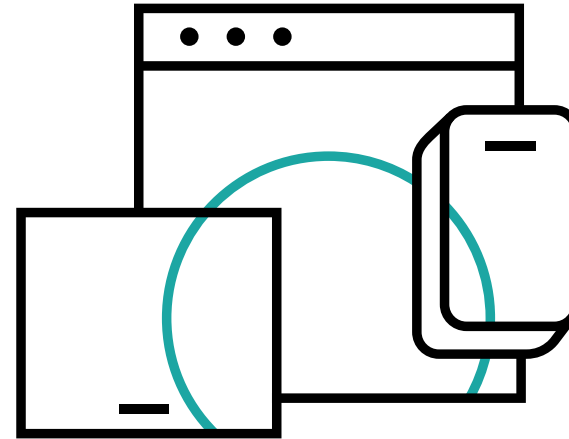
SUGCON
GLOBAL 2020



aspnet:4.8-windowsservercore-ltsc2019



Production

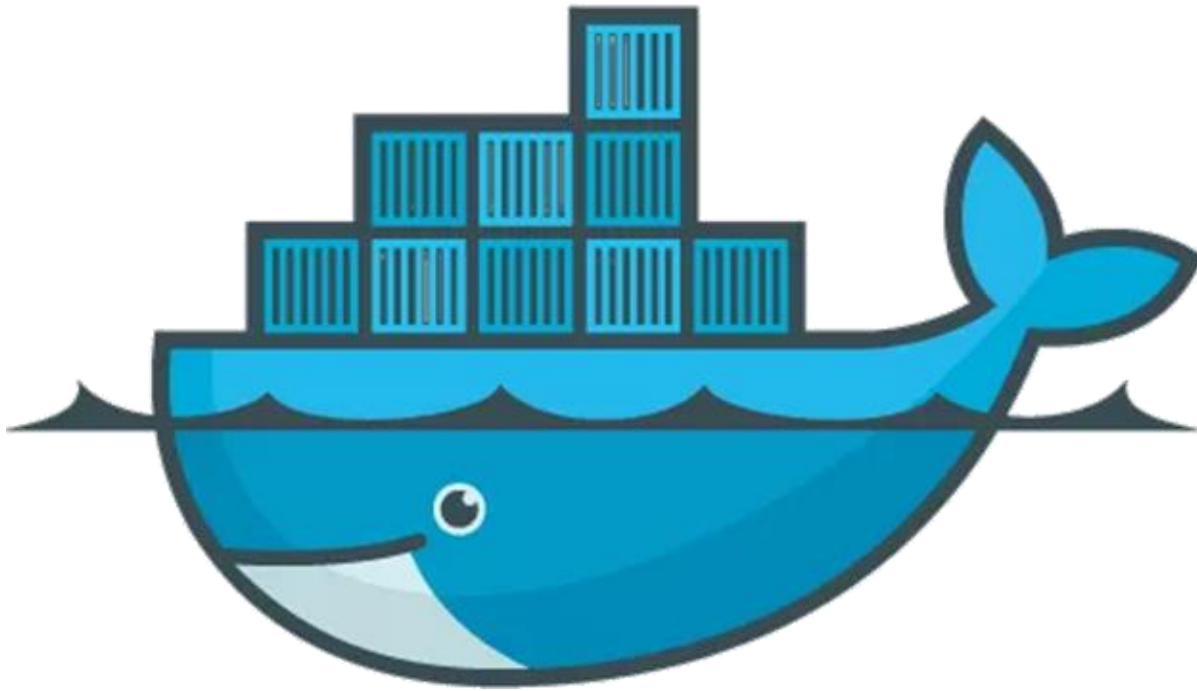


Development

How to use the images?



SUGCON
GLOBAL 2020

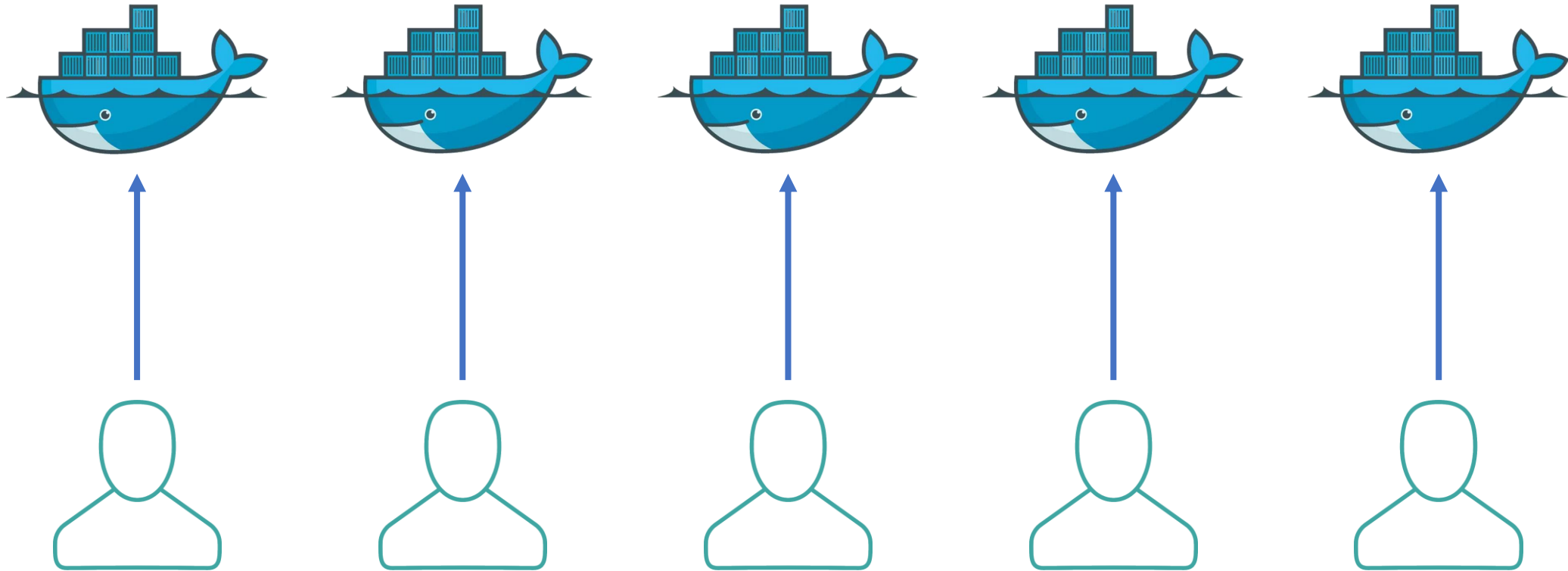


- Docker-Compose pulls groups of containers into complete systems
- 22+ examples for 9.3 in the repo.
- XM, XP & XC examples
- SPE, SXA, JSS examples and more!

How to work in a dev team?



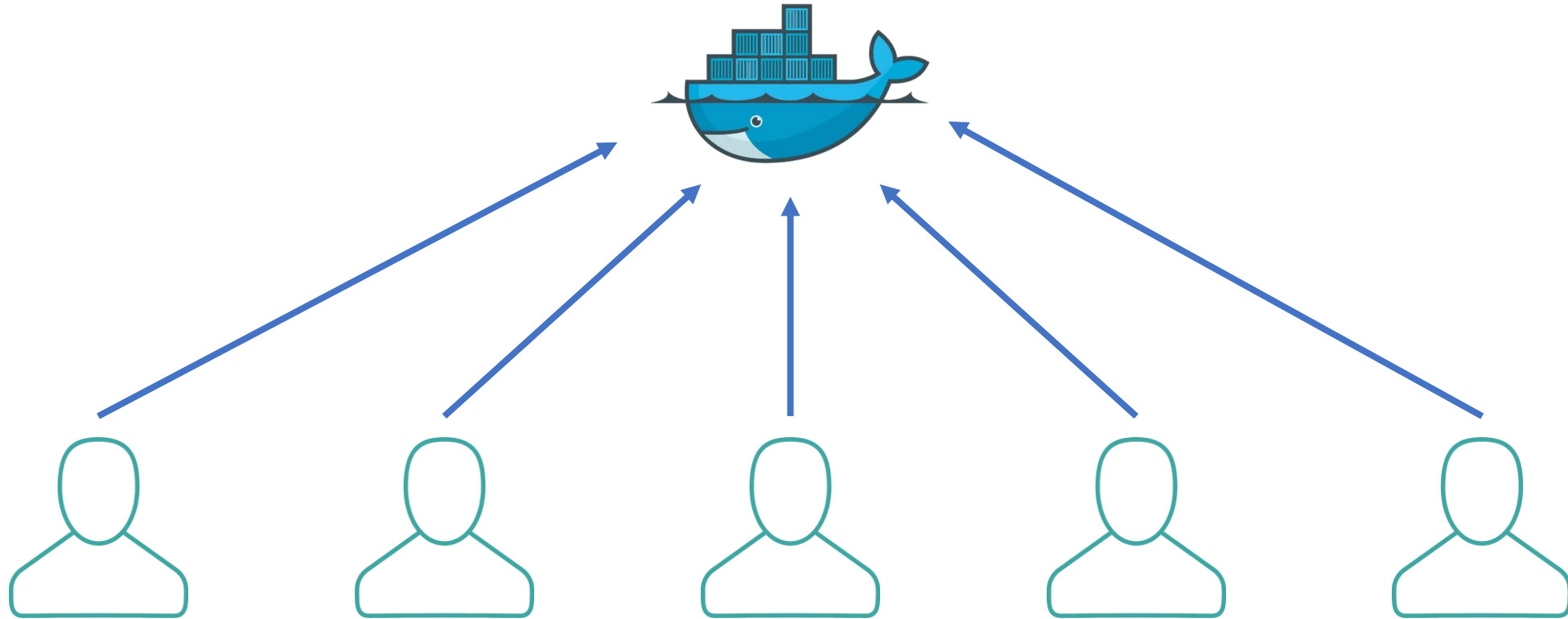
SUGCON
GLOBAL 2020



How to work in a dev team?



SUGCON
GLOBAL 2020



Using Docker for Sitecore Development



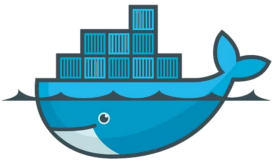
What do we need?



SUGCON
GLOBAL 2020



GitHub Repository



Custom docker-compose (XP & SXA)



Visual Studio Solution

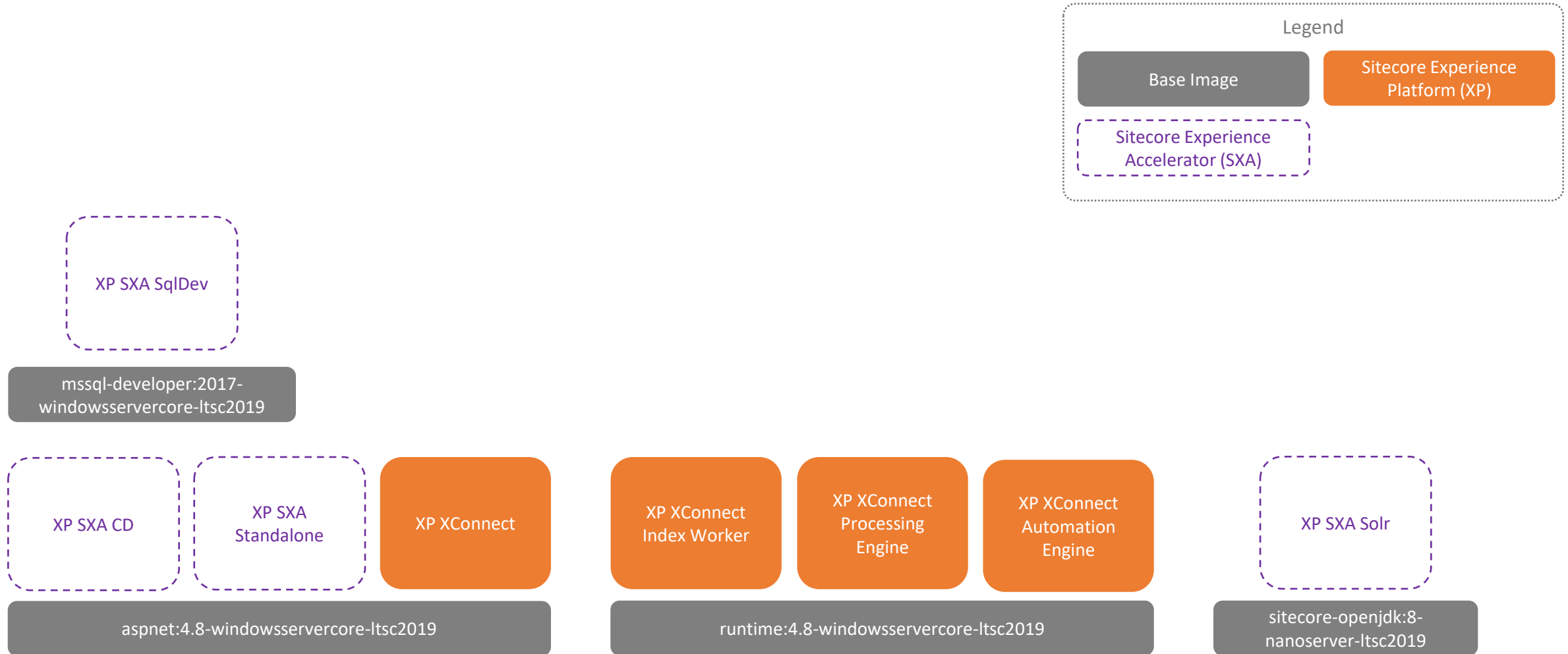


TDS Serialisation

Architecture



SUGCON
GLOBAL 2020





Videos:

- Docker – A Quick Introduction
<https://www.youtube.com/watch?v=RMYGVOswlKk>
- Sitecore Docker Images Repo
<https://www.youtube.com/watch?v=cA1CMdwrNVU>

Github

- Sitecore Docker Images Repo
<https://github.com/Sitecore/docker-images>
- This Repo
<https://github.com/robearlam/Getting-Started-With-Docker-and-Containers>

Questions?

*I am a proud community member!
Please contact me on the following handles:*



Rob Earlam

sitecorechat.slack.com



@RobEarlam

[twitter](https://twitter.com/RobEarlam)

Thank you!

robearlam.com

twitter.com/robearlam

github.com/robearlam

linkedin.com/in/rob-earlam/