Special Interest Group in Software Testing (SIGiST)

17 Nov 2016

Auckland

Ronak Panchal and Nigel Saunders

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5:30pm ANZTB update

5:40pm Automation Frameworks For Beginners by Vyom Gulia

6:15pm Networking & Refreshments

6:45pm Testing with Service Virtualisation Tools by Sunil Khutan

7:20pm Close

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ANZTB's mission is to support, improve and advise software testing profession within Australia and New Zealand.

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SIGIST

- SIGiSTs are sponsored by ANZTB
- Discuss white papers, new trends in Testing, share information and networking
- About 30 SIGiST in a year
- Presentations on the ANZTB website

Please speak to your facilitator if you would like to get involved.

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ANZTB Test 2017 Annual Conference

Theme: Testing for Tomorrow

When: Friday 5th May, 2017
Where: Intercontinental Wellington, New Zealand

This one-day event will feature local and international testing experts, discussing the latest advances in the profession.
For more details and registration visit www.anztb.org in coming months

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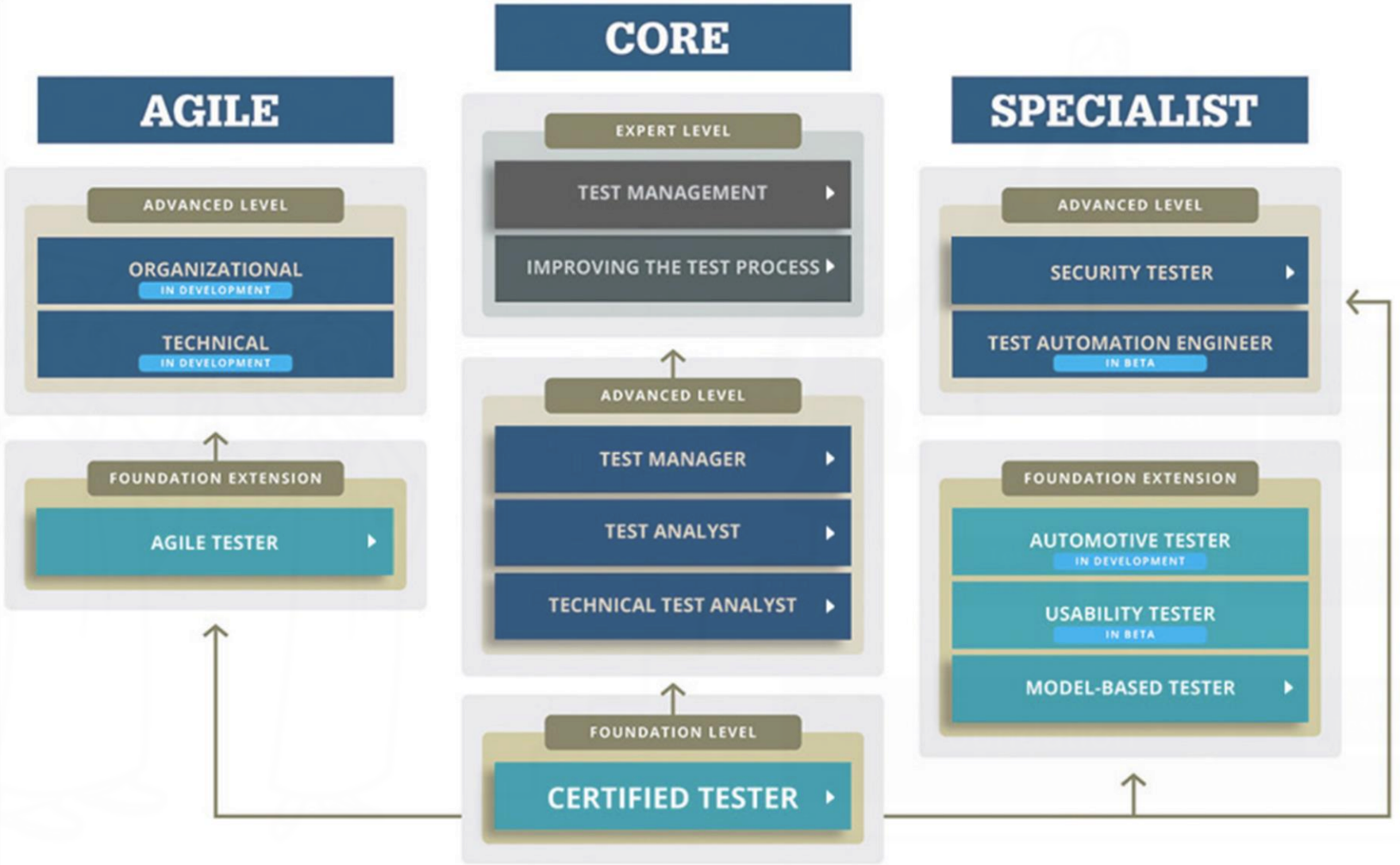
Certification Paths



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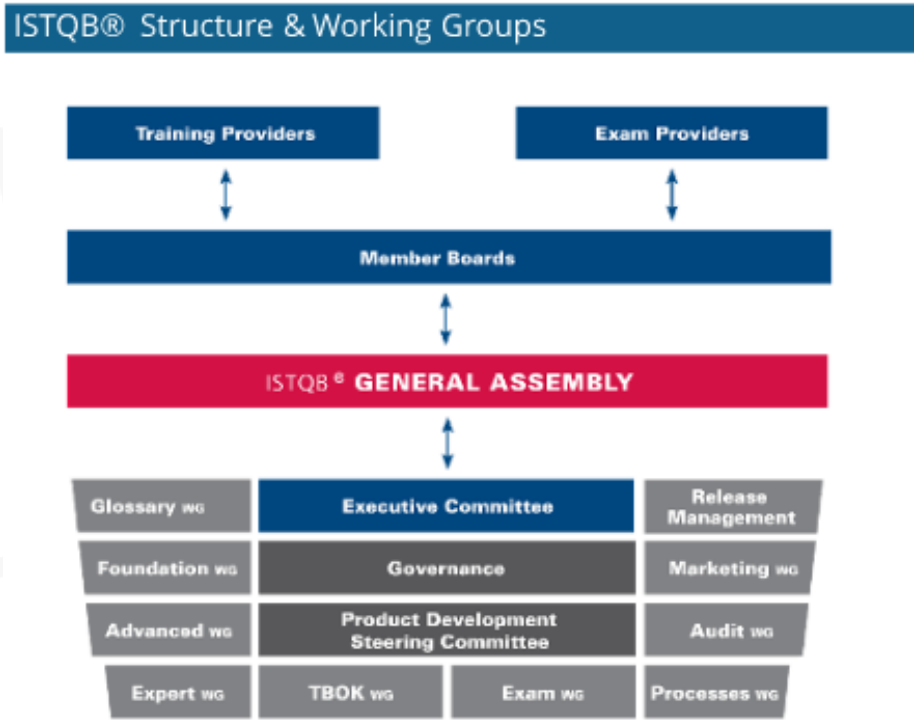

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Presentation 1

Automation Frameworks For Beginners
by Vyom Gulia

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Automation Frameworks

For Beginners

Agenda

- What is Automation Framework
- Features of Framework
- Types of Frameworks
- Components of Framework
- Framework Architecture
- Framework Approach
- Automation Framework Pitfalls
- Are we nearly there yet?

What is Automation Framework?

Set of Rules

Efficient

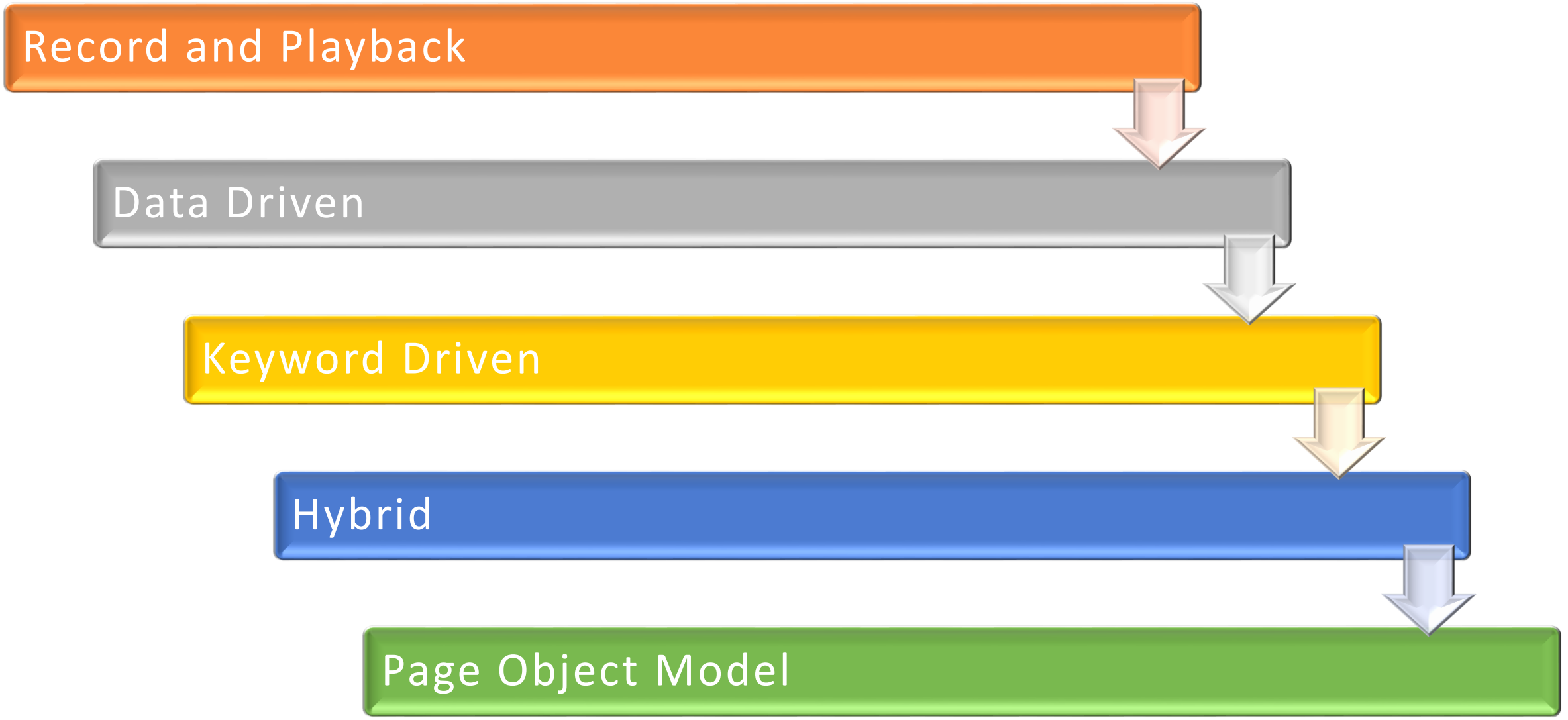
Uniformity

Seamless Integration

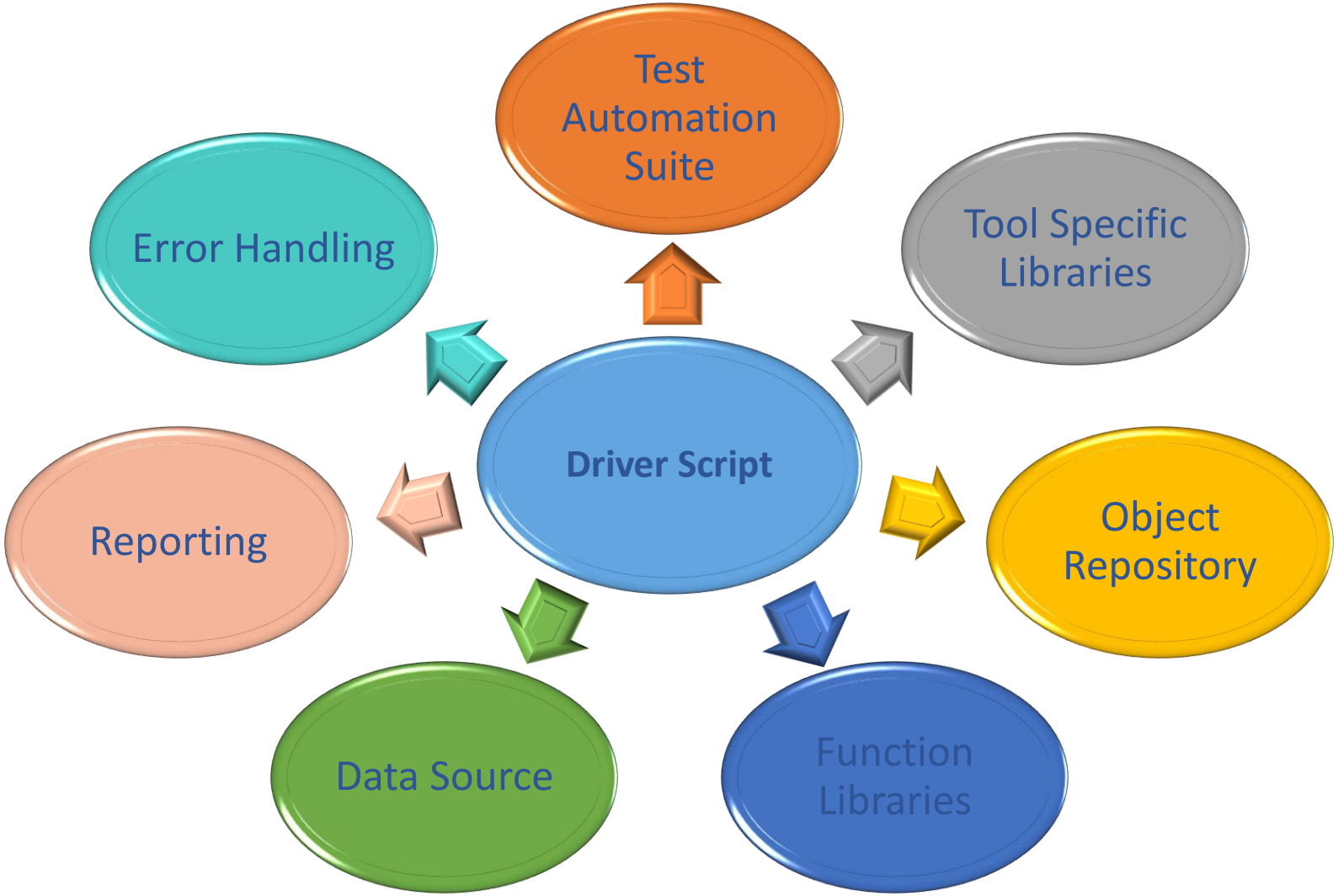
Features of Framework

Portable	• Tool Independent • Technology/ Language Independent
Scalable	• Ease of designing tests across platforms • Can be implemented easily in different environment
Modular	• Use of reusable components • Test optimization
Maintainable	• Easy to update test scripts • Easy to update function libraries, object definitions
Robust	• Efficient error handling mechanism • Accurate Reporting
Usability	• Ease of use for a new team member • Ease of integration with different systems in projects

Types of Automation Framework



Components of Framework



Framework Architecture

Common Functions

Project specific Functions

Tool specific Libraries

Object Repository

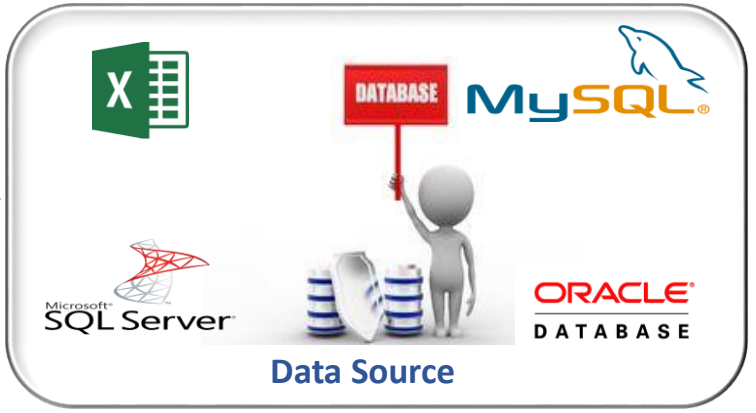
Error Handling

Test Automation Scripts

Interaction with AUT

Application Under Test

Driver Script



Data Source

Reporting

Framework Approach

Understand

- Educate the project stakeholders
- Identify automation scope
  - TDD/BDD
  - CI/CD
  - Regression

Implement

- Identify scenarios to automate
- Create/Import function libraries
- Create object repository and data source
- Dry run

Analyze

- Select 2-3 automation tools
- Identify test data requirements
- Identify Test Management Tool
- Identify Reporting requirements

Proof of Concept

- Identify 1-2 end to end scenarios
- Identify AUT compatibility with tool
- Automate the scenarios
- Consolidate and compare the results for selected tools

Automation Framework Pitfalls

Overuse of tools/technologies

Complex framework

Over thinking Automation Framework

Try to achieve 100 % automation

Automation will replace functional testing

Are we nearly there yet?

- ✓ Have you followed coding standards defined for the language you are using? Have you implemented proper comments wherever required?
- ✓ Are your test scripts optimized. Is it still possible to make any action/scripts/component reusable?
- ✓ Are you writing different test scripts for same test cases to be executed in different browsers/platforms?
- ✓ Is test execution report providing sufficient information to be shared with stakeholders (project management, developers and test team)?
- ✓ Is it possible to implement the same framework with minor changes in project with different technology?

Is it what you desired?

Thank You

Networking and Refreshments

We will resume at XX:XX

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Presentation 2

Testing with Service Virtualisation Tools by Sunil Khutan

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Testing with Service Virtualisation Tools

Sunil Khutan
Technical Test Consultant

Overview

Common Issues

SV

Benefits

DevOps

Methodologies

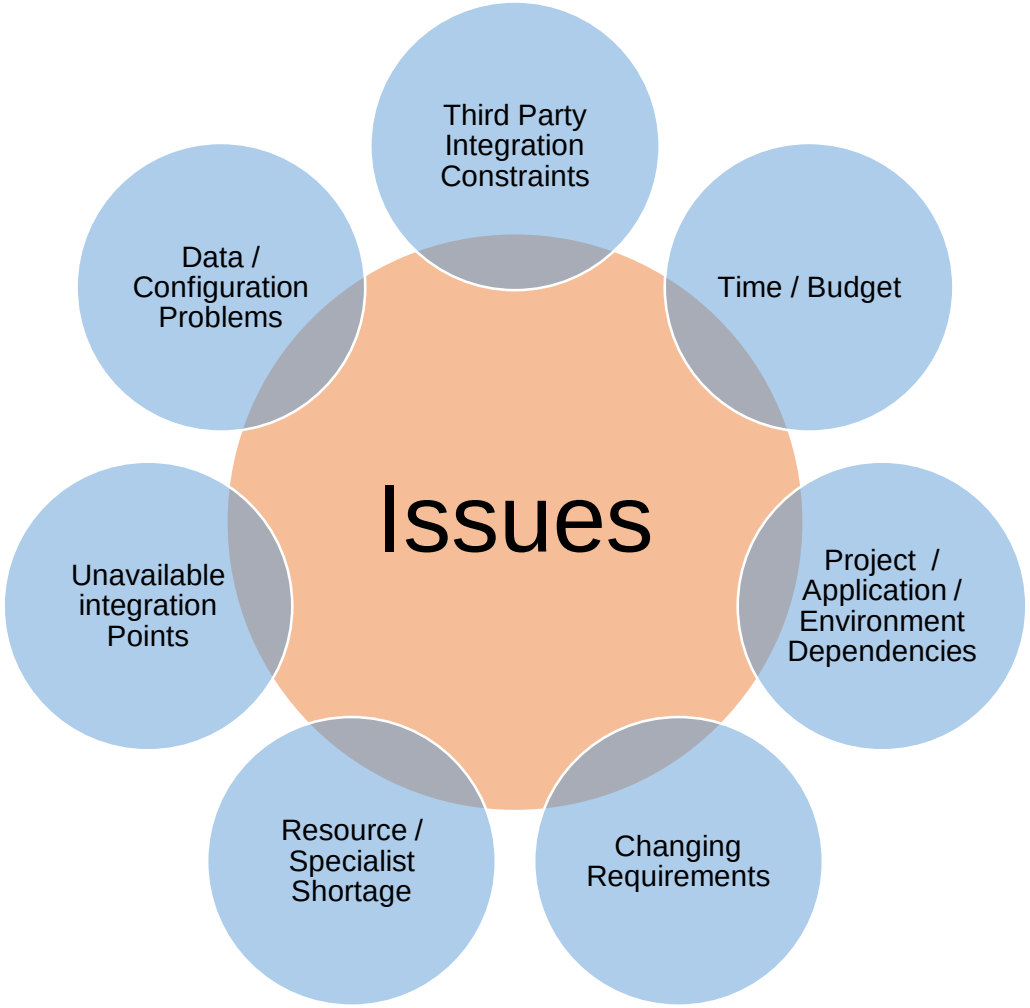
Tools

Summary

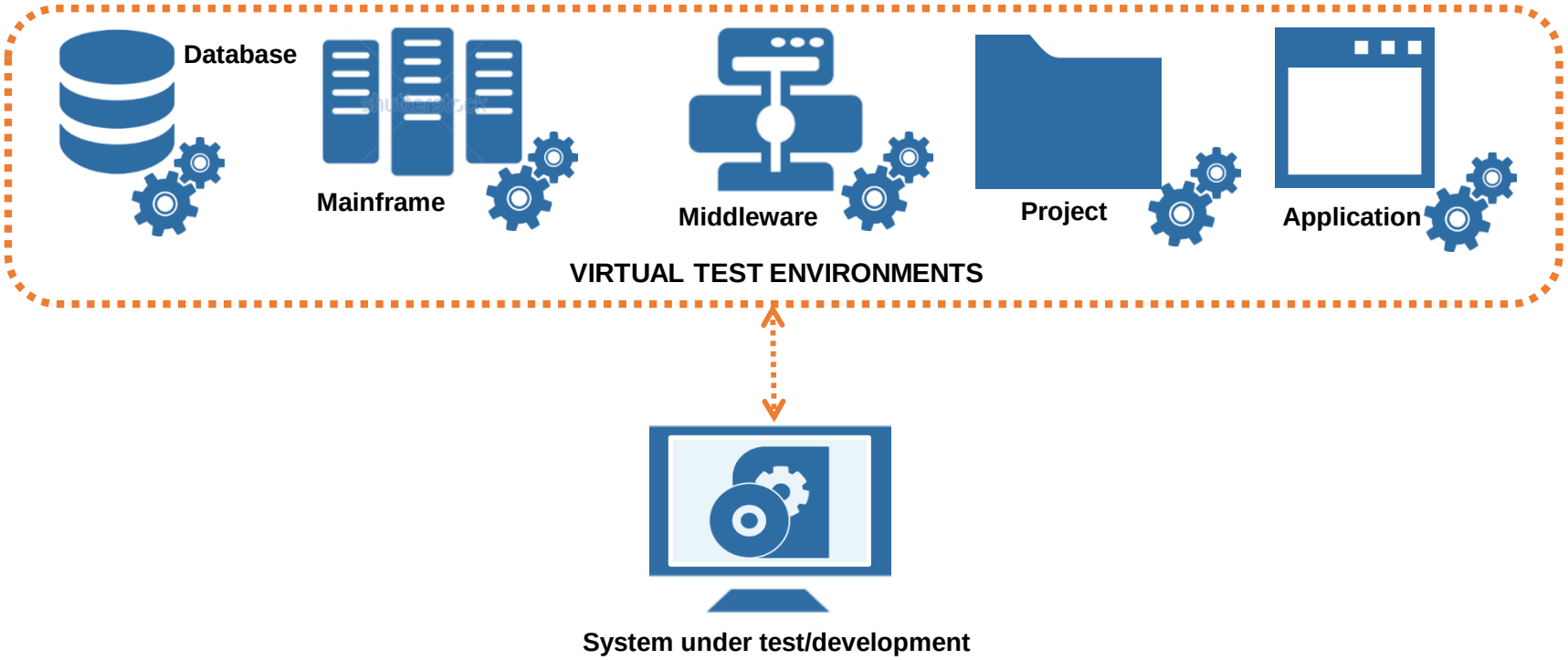
Questions

Project Issues

Common Project Issues



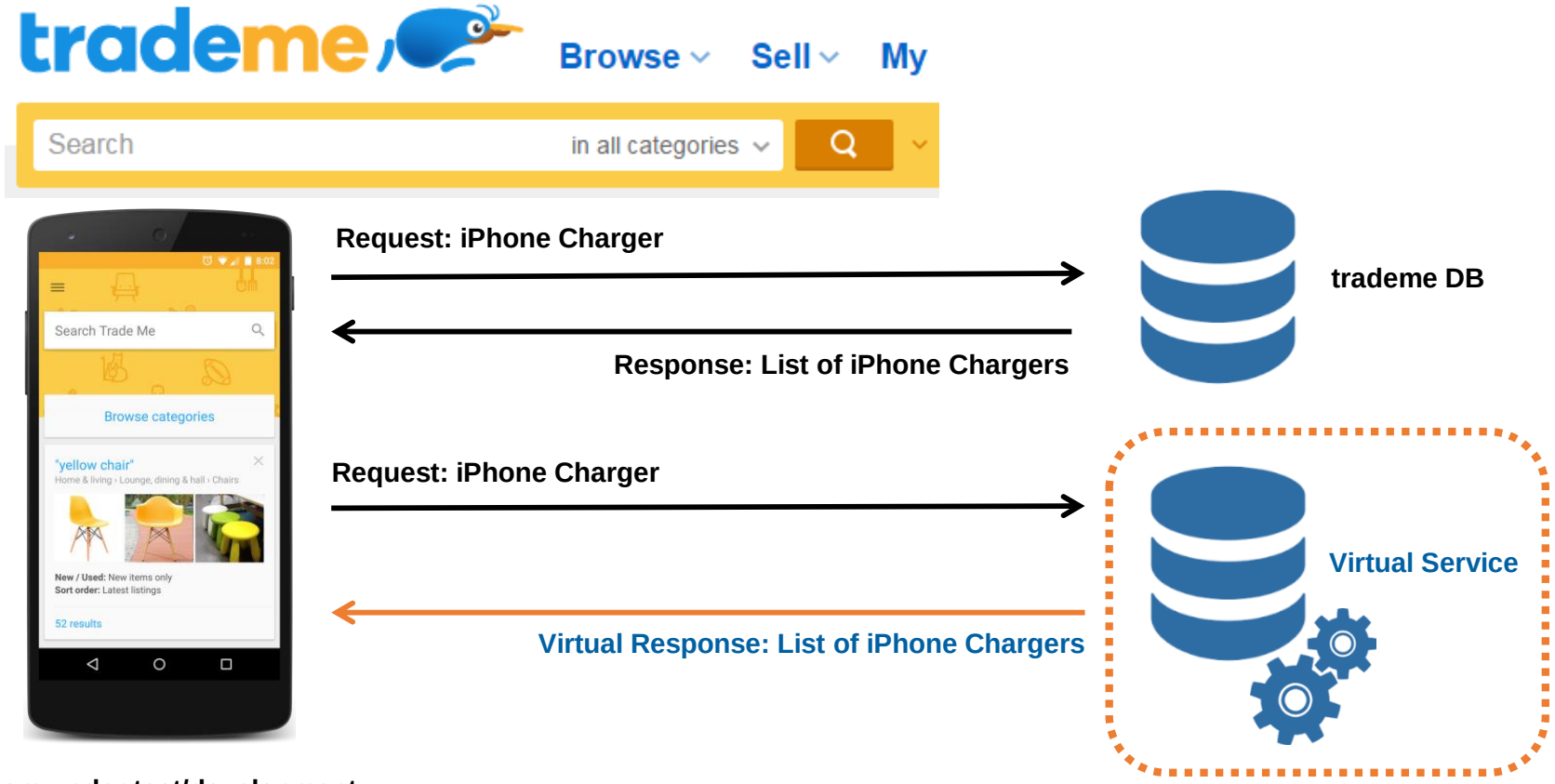
Dependencies



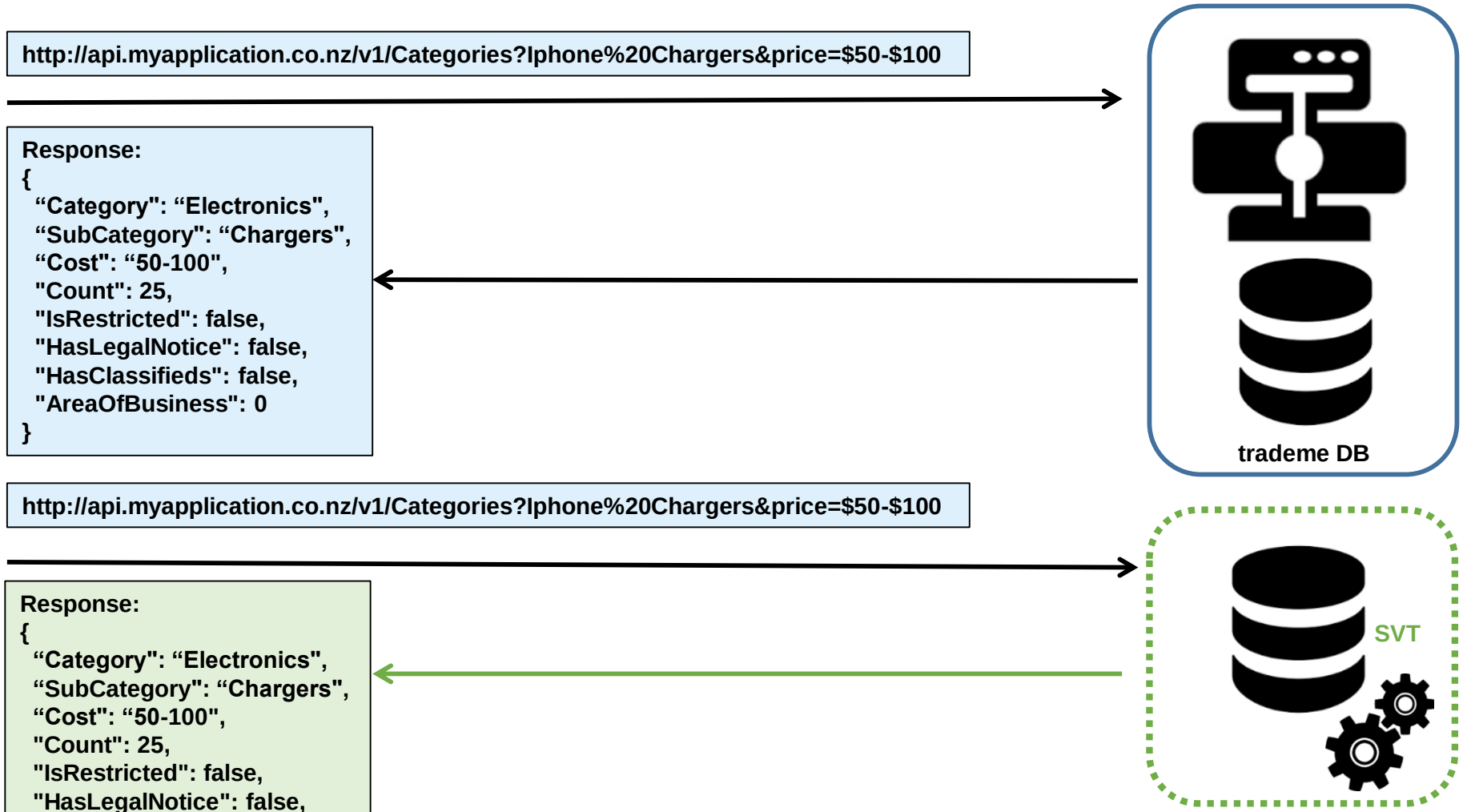
Service Virtualisation

Service Virtualisation…

"…is a ***simulation*** of an integration point or application"



How it Works…


http://api.myapplication.co.nz/v1/Categories?Iphone%20Chargers&price=$50-$100
Response:
{
“Category": “Electronics",
“SubCategory": “Chargers",
“Cost": “50-100",
"Count": 25,
"IsRestricted": false,
"HasLegalNotice": false,
"HasClassifieds": false,
"AreaOfBusiness": 0
}
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http://api.myapplication.co.nz/v1/Categories?Iphone%20Chargers&price=$50-$100
SVT
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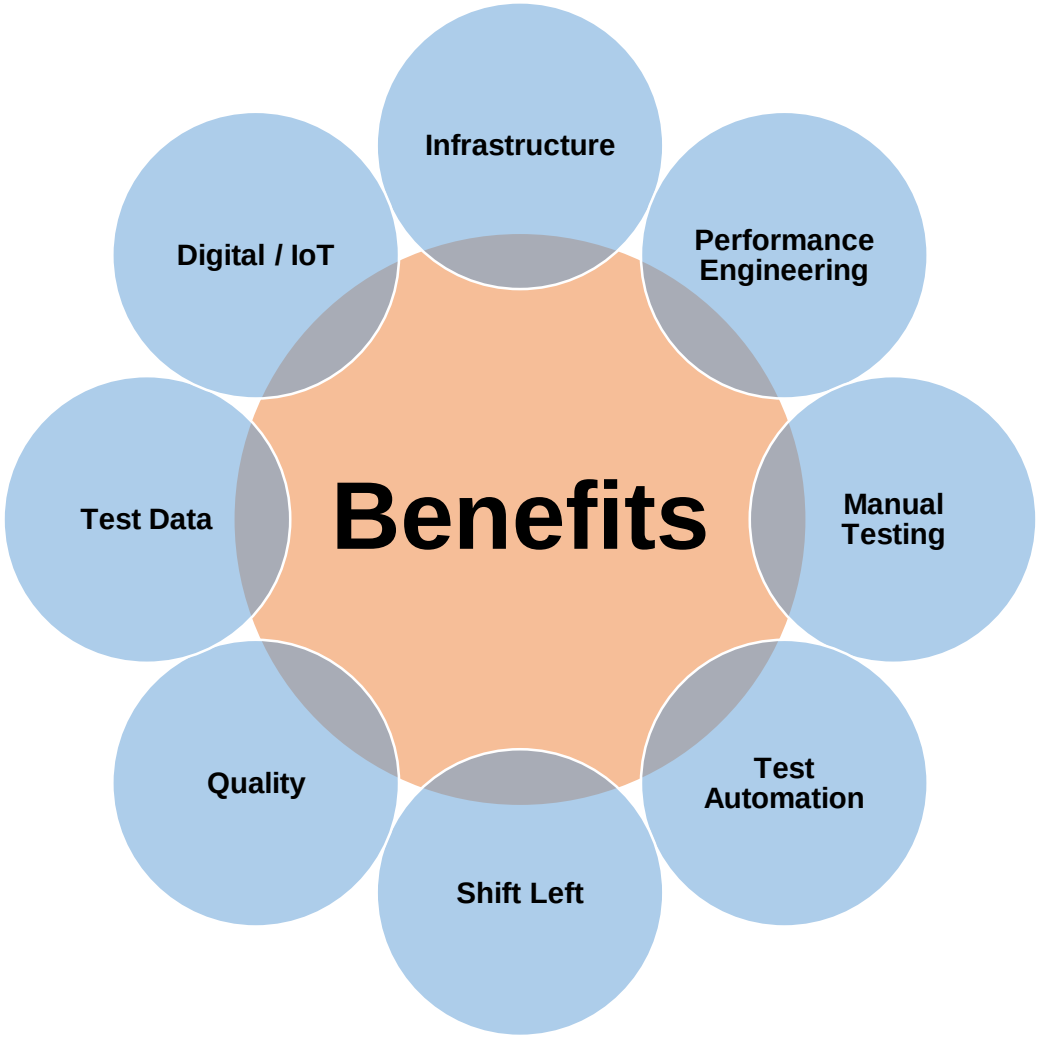
"AreaOfBusiness": 0
}

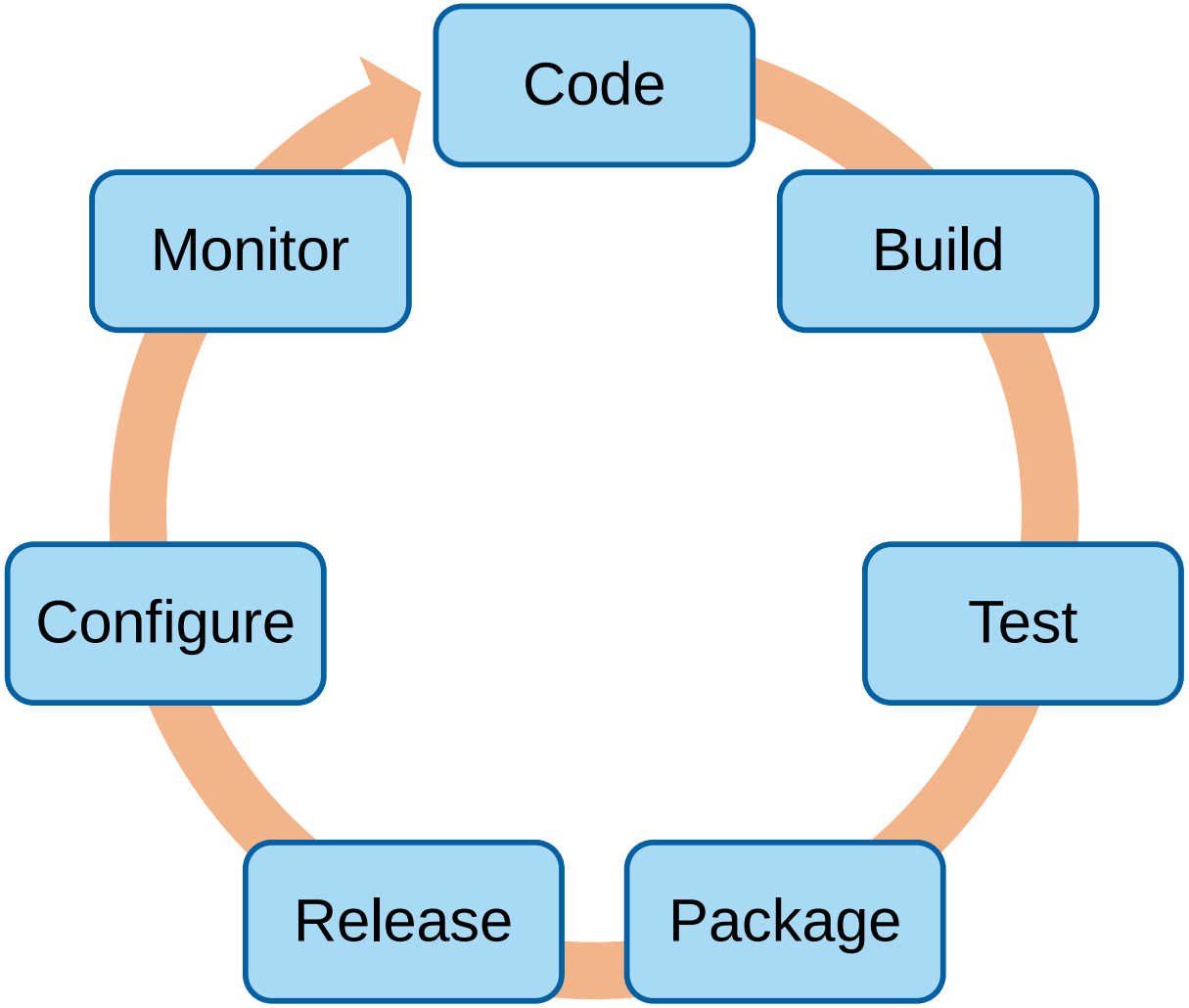
Business Benefits

Benefits of Service Virtualisation



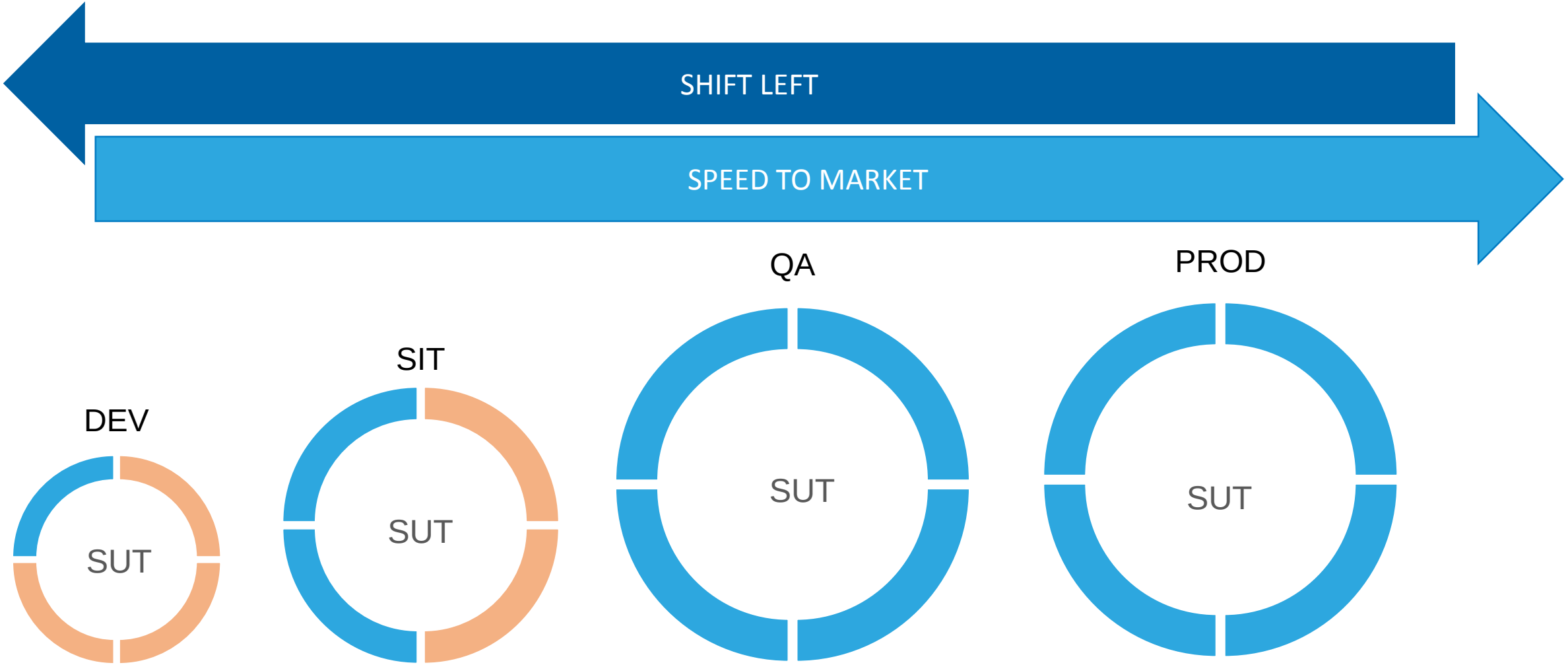
DevOps

DevOps Model



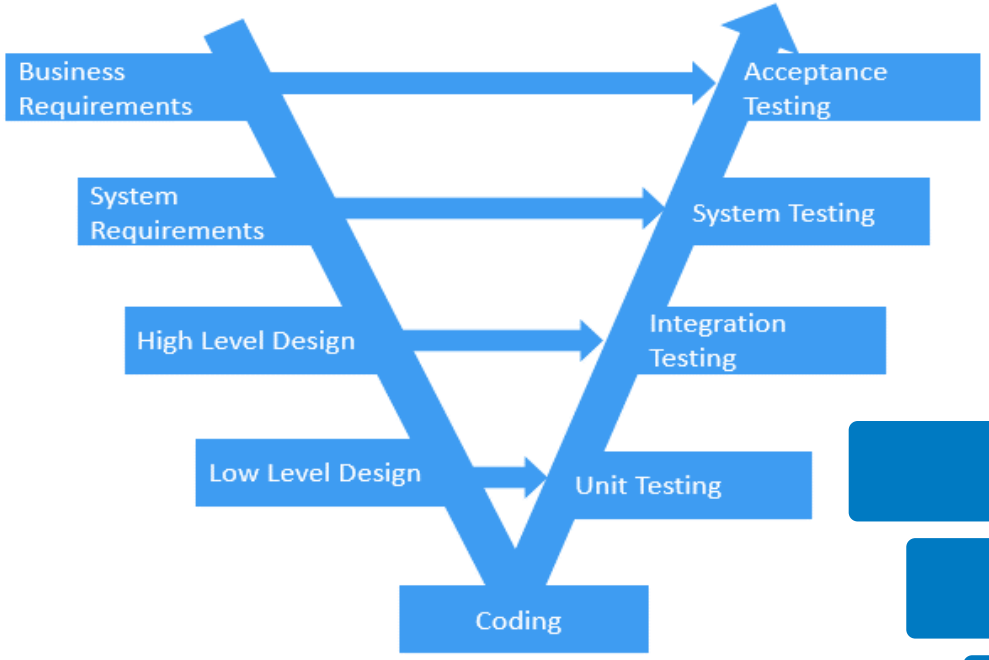
DevOps & Service Virtualisation

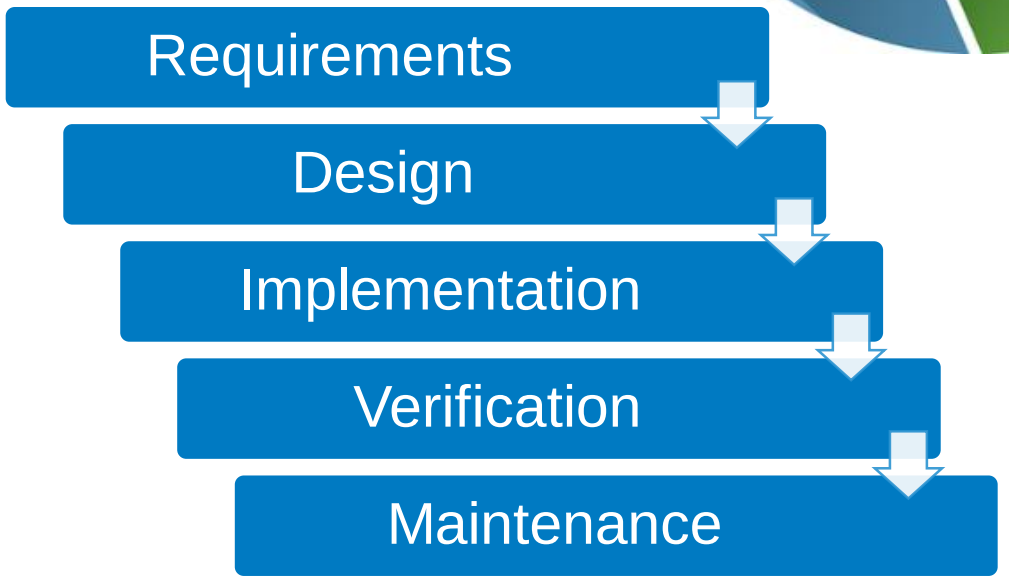
Continuous Integration | Continuous Testing | Continuous Delivery



Testing Methodologies

Methodologies





Market Tools & Solutions

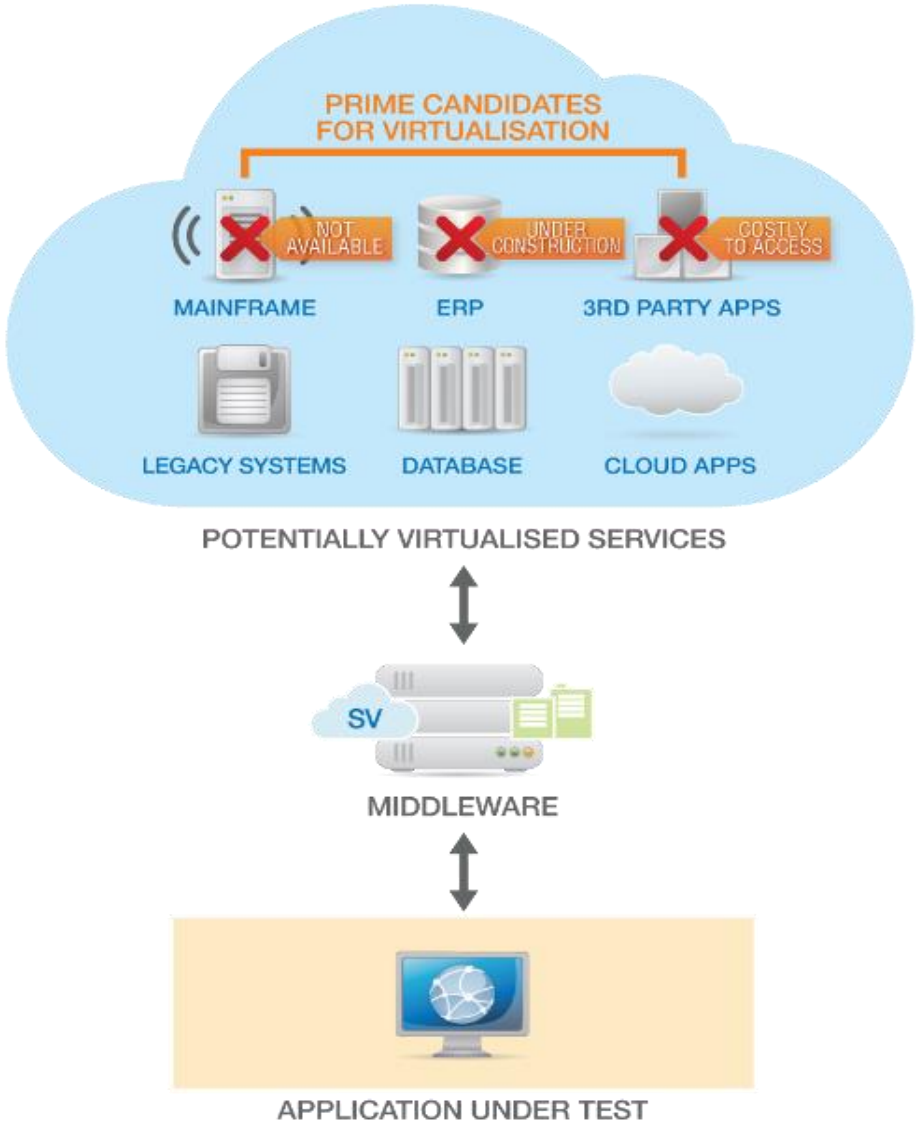
Types of Solutions

Cloud Solutions

API’s / Microservices

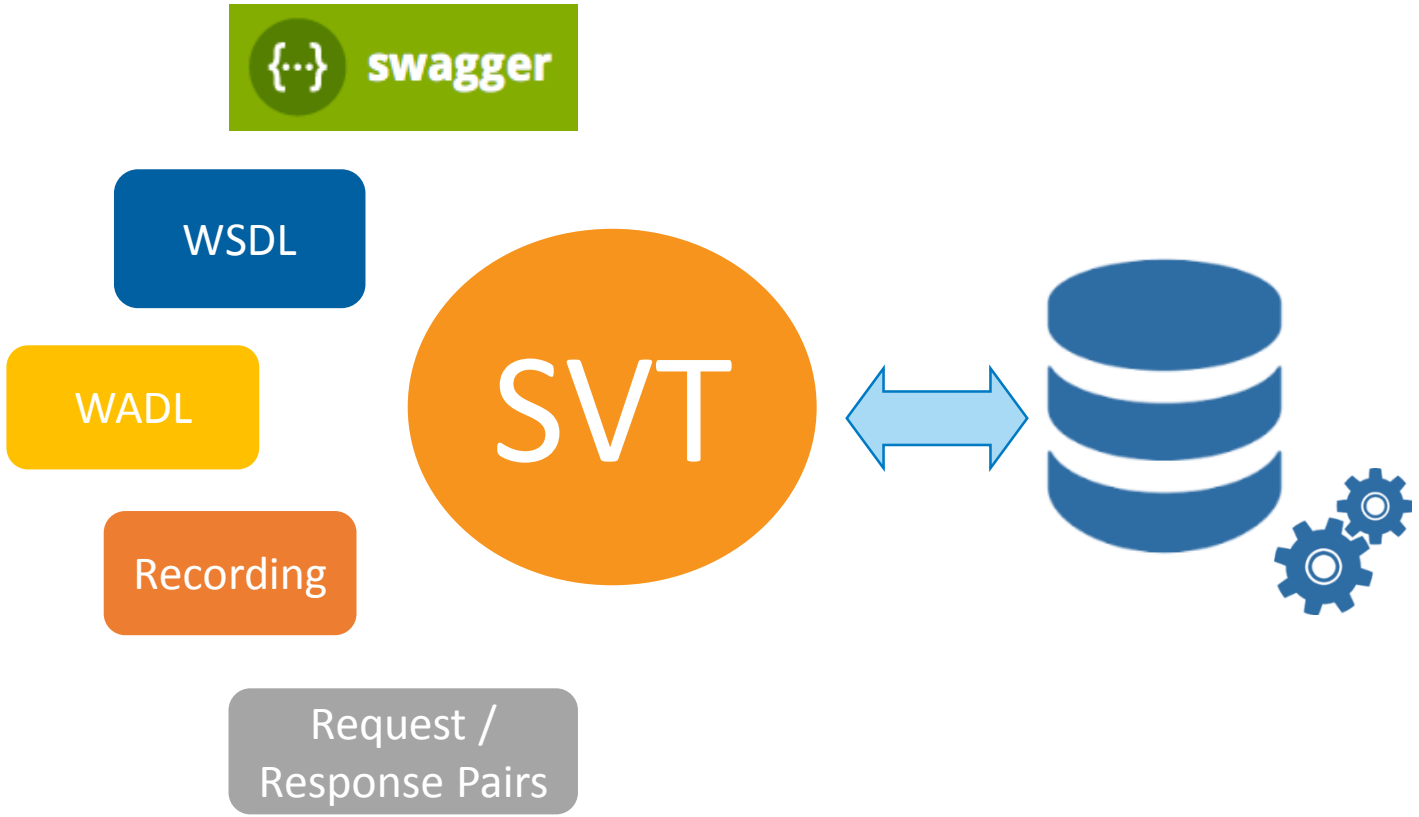
Middleware / ESB’s

Mainframe

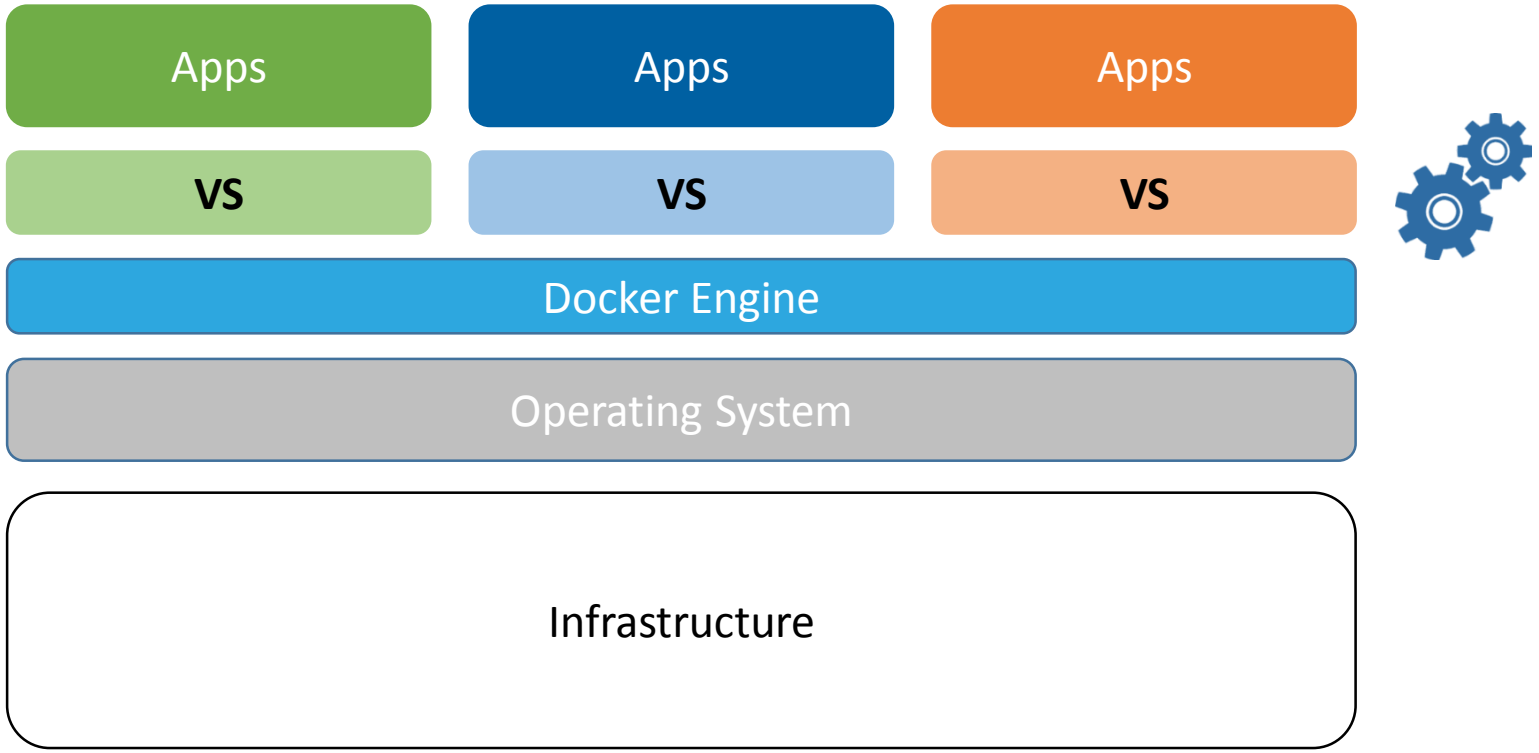


Tools & Capabilities

Virtual Services within minutes…



SV & Containerisation



Summary

- Service Virtualisation:
  - Eliminates common project risks / issues
  - Promotes Shift Left, DevOps and Agile Concepts
  - Accelerates Application Development / Testing
  - Can be applied to any project methodology
  - Ensures Speed to Market with high quality
- Should be considered early in the SDLC and planned at an enterprise level
- NZ Market
- SV Tools / Solutions
  - Swagger
  - Containerisation

Thank You
Questions?

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Technical Test Consultant

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If you would like to present at a future SIGiST or at any Australian or New Zealand venue, please contact your local facilitator XX (xx@anztb.org)
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