

4.4 Achieving or Exceeding Target Levels

To increase confidence and exceed the current target levels, many extensions to the test suite would be needed.

Formal code coverage metrics would allow for quantitative assessment of which areas of implementation were exercised and guide the creation of additional tests. This would provide the framework for more comprehensive testing across all levels.

Performance testing could be extended by introducing stress testing, potentially using much larger numbers of deliveries spread through the city to observe how the system performs under heavy workloads. More detailed timing analysis could also allow for identification of bottlenecks and provide insight into how performance could be improved, rather than just ensuring tasks complete within 30 seconds.

Additionally, functional requirement coverage could be increased by handpicking values for edge and extreme test cases, rather than relying on solely randomly generated values. This would ensure that each unit was testing comprehensively.

Together, these enhancements would improve confidence in the robustness and reliability of the system beyond what was achieved with the current test suite.