VCE Systems Engineering

**Potential Tests**

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| Test Type | Test Variations | Test Equipment |
| Speed Test | * Time taken from RFID scan to Laptop unlock * Time taken from RFID scan to request denied | * Stopwatch |
| Range Test | * Distance travelled from preferred stop till unstable network or network drop | * Tape measure/ measuring tape (long) |
| Durability Test | * General wear and tear. |  |
| Environmental Test | * Wet and dry conditions * Internal or external * Dust/dirt resistant | * Thermometer * Humidity meter |
| Reliability Test | * Consistency (same result within tolerance) * Repeatability (functions multiple times) * Subsystems working together | * Test with authenticated and non-authenticated RFID entities |
| Power source Test | * Voltage/ Current sufficiency | * Multimeter |
| Function Test | * RFID accuracy test | * RFID cards |
| Operation Test | * Ergonomic test (human comfort) * Logical layout test | * Survey sheet |
| Visibility Test | * How intuitive is the system to use | * Variety of locations |
| Safety Test | * Sharp edge/ point test * Exposed wiring test (electrical) * Exposed mechanism test * Material safety | * Handling methods * Continuity tester |
| Detection Test | * Sensor testing (RFID scanner) | * Sensor input; RFID signal. |
| Appearance Test | * Opinion survey (purpose; safety, blend in, marketing) | * Survey sheet |
| Accuracy Test | * Closeness to target performance | * Function tests at different times and varying frequency |
| Maintenance Test | * Accessibility * Component/ Part changeover | * Tools, spare parts |