Digital Security by Design - TAP

Tracker Document - Pytilia Ltd

**This progress tracker document will be used for monthly 1:1 check-in sessions, to capture your progress, as well as any challenges you face and, where possible, the routes by which you managed to solve them. This document will hopefully help you when preparing your 3-month and final reports, and will also be invaluable for the creators of the Morello/CHERI architectures when considering future development; the details you help to capture will have a direct benefit to the future design and development of these novel technologies.   
Please fill in this document ahead of the calls, as we will be using it as a baseline for our discussions and any support we can provide.**

**General Information**

| **COMPANY** | **Pytilia Ltd** |
| --- | --- |
| **KEY CONTACTS** |  |
| **PROJECT OUTLINE AND SUCCESS CRITERIA** |  |

**Index of meetings**

[1 | September](#_heading=h.jg3wjjrfcml3) **3**

[2 | October](#_heading=h.a4dvu2n6350s) **4**

[3 | November](#_heading=h.d2txvcqkqkgr) **5**

[4 | December](#_heading=h.v4k1mpc68f52) **6**

[5 | January](#_heading=h.tljnukuuxqh) **7**

[6 | February](#_heading=h.6obmbl6gqjzd) **8**

**MONTHLY 1:1 CHECK-INS**

## *1 | 30 September*

Attendees:

| **COMMENTS** | |
| --- | --- |
| **SET UP OF BOARD / CHERI** | **PLANS FOR THE NEXT FEW WEEKS** |
| Packet processing (eg firewall) - processing across plugins - want to build an application for this on Morello and test against vulnerabilities in incorrect code / malicious code in plugins. Security + performance benefits?  Ingress focused for this project  Base in Rust -/ buffer to plugin address (in Cheri) for hand-off Plan to build DPDK on Morello then test performance of comms going through it + application(plugins) that connect with that. | Boot Morello / update firmware / CheriBSD Start planning how to port DPDK |
| **ISSUES / BLOCKERS**  Want to look into compartmentalisation - not as developed | |
| **MITIGATION ACTIONS** | |
| **PROGRESS AGAINST PLAN** Month or so behind | |
| **QUESTIONS/SUPPORT NEEDS** Where to run packet consumers (same address space or separate)?  How to test? - injection in plugin - try to read off end of packet  Data encryption? - analytics platform to look at data/sender (look at packet headers) - where in the application? Project benefits for Arm/UoC? | |

## *2 | October*

Attendees:

| **COMMENTS** | |
| --- | --- |
| **PREVIOUS ACTIONS/ACTIVITIES** | **PLANS FOR THE NEXT FEW WEEKS** |
|  |  |
| **ISSUES / BLOCKERS** | |
| **MITIGATION ACTIONS** | |
| **PROGRESS AGAINST PLAN** | |
| **QUESTIONS/SUPPORT NEEDS** | |

## *3 | November*

Attendees:

| **COMMENTS** | |
| --- | --- |
| **PREVIOUS ACTIONS/ACTIVITIES** | **PLANS FOR THE NEXT FEW WEEKS** |
|  |  |
| **ISSUES / BLOCKERS** | |
| **MITIGATION ACTIONS** | |
| **PROGRESS AGAINST PLAN** | |
| **QUESTIONS/SUPPORT NEEDS** | |

## *4 | December*

Attendees:

| **COMMENTS** | |
| --- | --- |
| **PREVIOUS ACTIONS/ACTIVITIES** | **PLANS FOR THE NEXT FEW WEEKS** |
|  |  |
| **ISSUES / BLOCKERS** | |
| **MITIGATION ACTIONS** | |
| **PROGRESS AGAINST PLAN** | |
| **QUESTIONS/SUPPORT NEEDS** | |

## *5 | January*

Attendees:

| **COMMENTS** | |
| --- | --- |
| **PREVIOUS ACTIONS/ACTIVITIES** | **PLANS FOR THE NEXT FEW WEEKS** |
|  |  |
| **ISSUES / BLOCKERS** | |
| **MITIGATION ACTIONS** | |
| **PROGRESS AGAINST PLAN** | |
| **QUESTIONS/SUPPORT NEEDS** | |

## *6 | February*

Attendees:

| **COMMENTS** | |
| --- | --- |
| **PREVIOUS ACTIONS/ACTIVITIES** | **PLANS FOR THE NEXT FEW WEEKS** |
|  |  |
| **ISSUES / BLOCKERS** | |
| **MITIGATION ACTIONS** | |
| **PROGRESS AGAINST PLAN** | |
| **QUESTIONS/SUPPORT NEEDS** | |