



# AFSecurity.IO Technical White Paper

Version: 1.0

# CONTENTS

---

01

 Background

02

 Introduction

03

 How it works

04

 Roadmap

05

 High Level Design

06

 Legal Disclaimer

# Background

---

- AI (artificial intelligence) technology can be used in cyber security, hackers may be able to use machine learning to create a new generation of autonomous attackers, and AI can also be used in cyber defense.
- One big pain point for cyber security product/service is that make a contract with customer usually is difficult, needs lots of process and takes much time, especially for pricing and payment.
- Blockchain and smart contracts technology enable people to develop and use cyber security service contracts in a quick, easier and secured way.

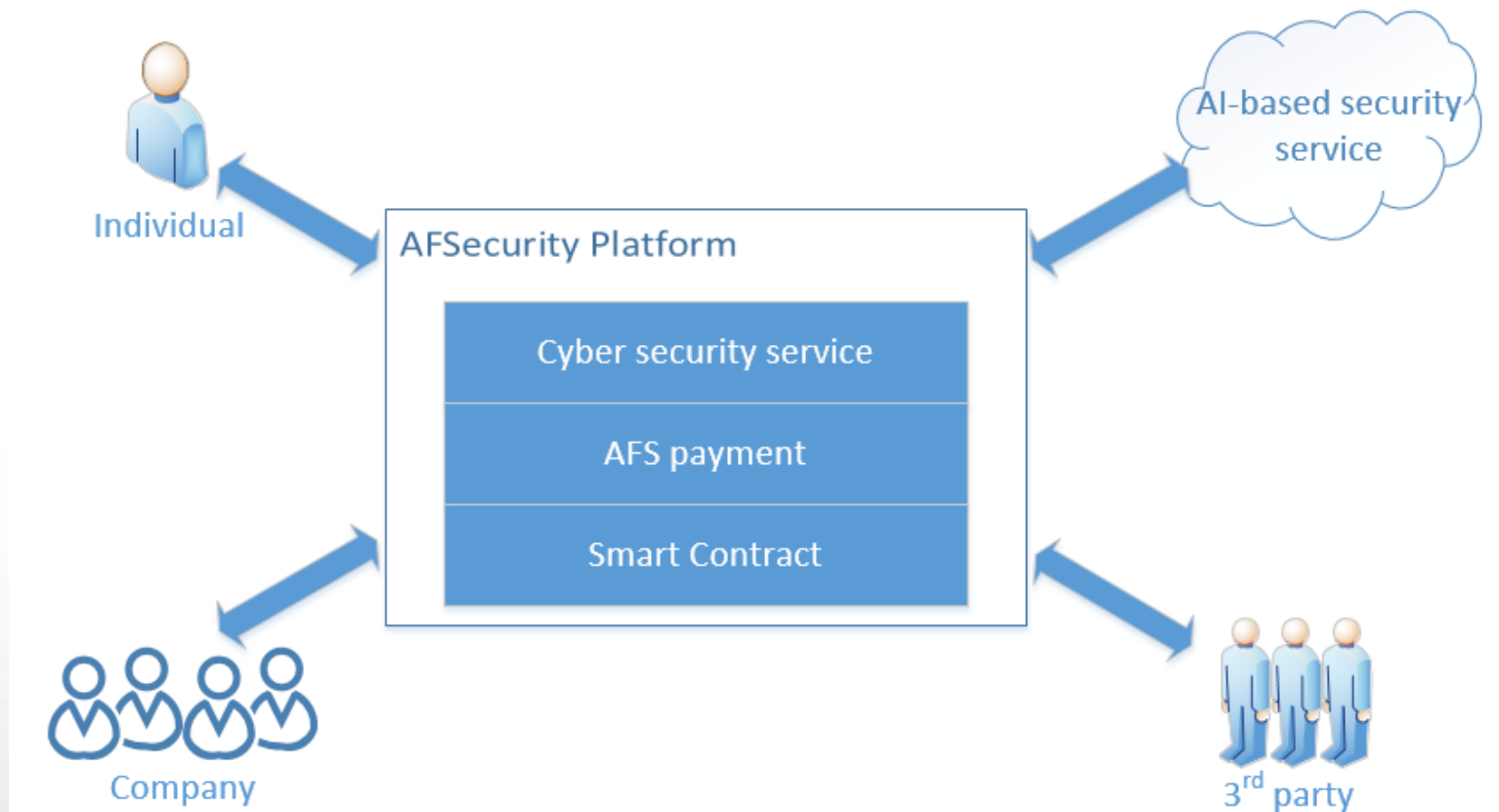
# Introduction

---

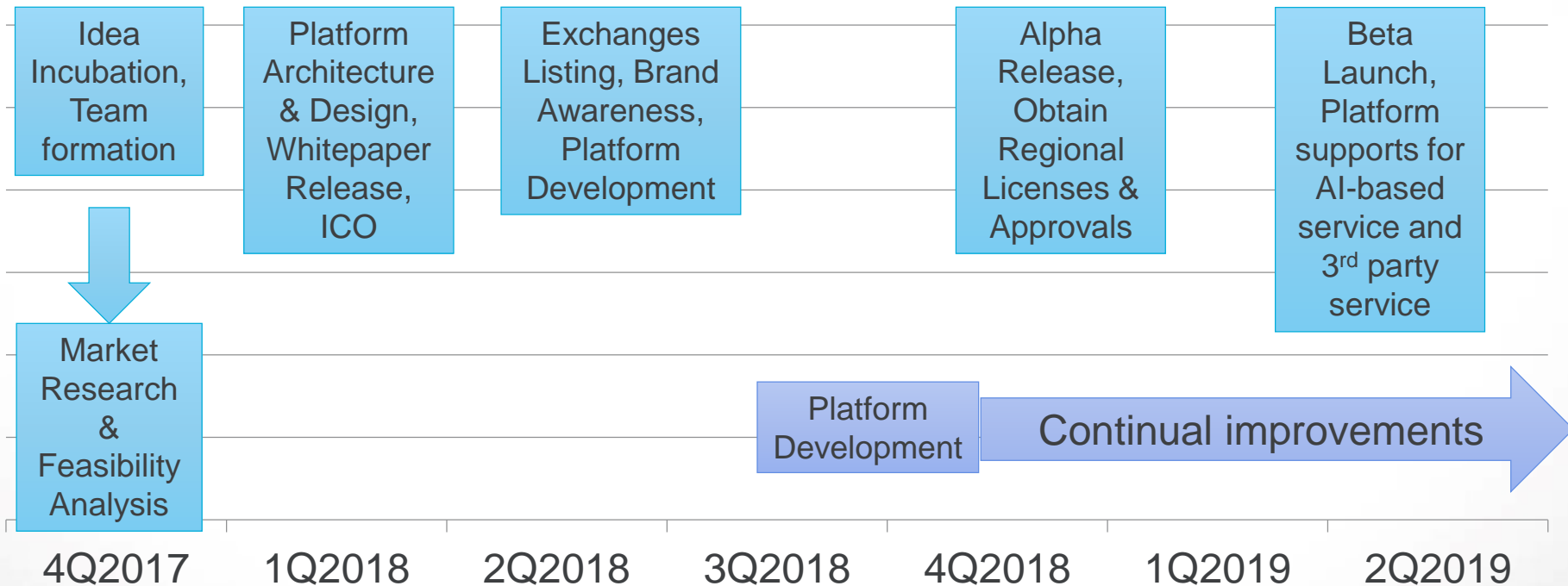
- AFSecurity is an AI-based cyber security service platform built on blockchain that enables its users and service providers of the platform to develop and use security service contracts in a quick, easier and secured way. Platform integrates AI network security service, AI is able to find bugs, security holes much more quickly than humans could have, and AI can also be used in penetration test, cyber defense.

# How it works

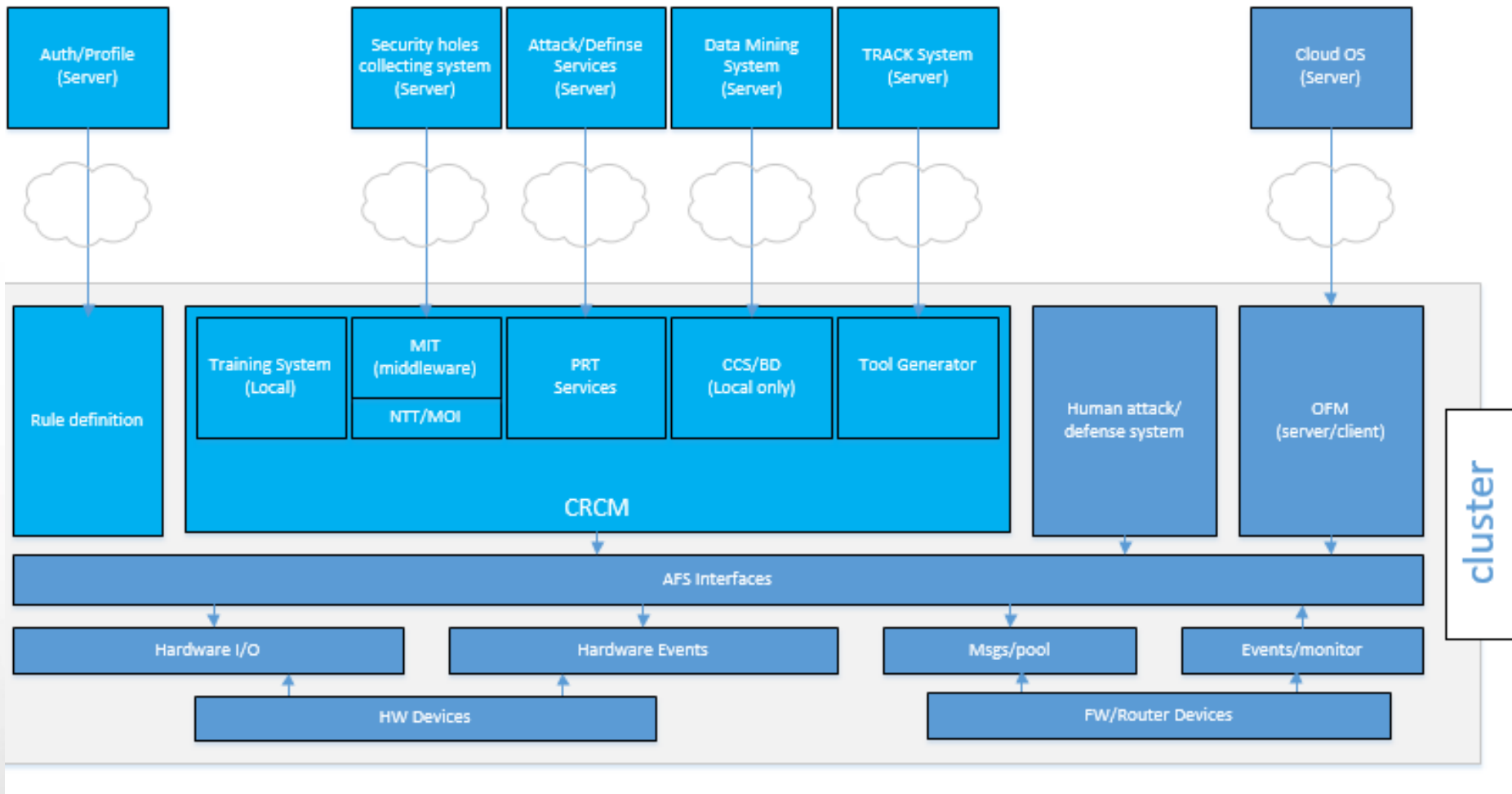
- With AFSecurity, any individual or company can make contracts with security service providers, use security services, and pay with AFS coin.



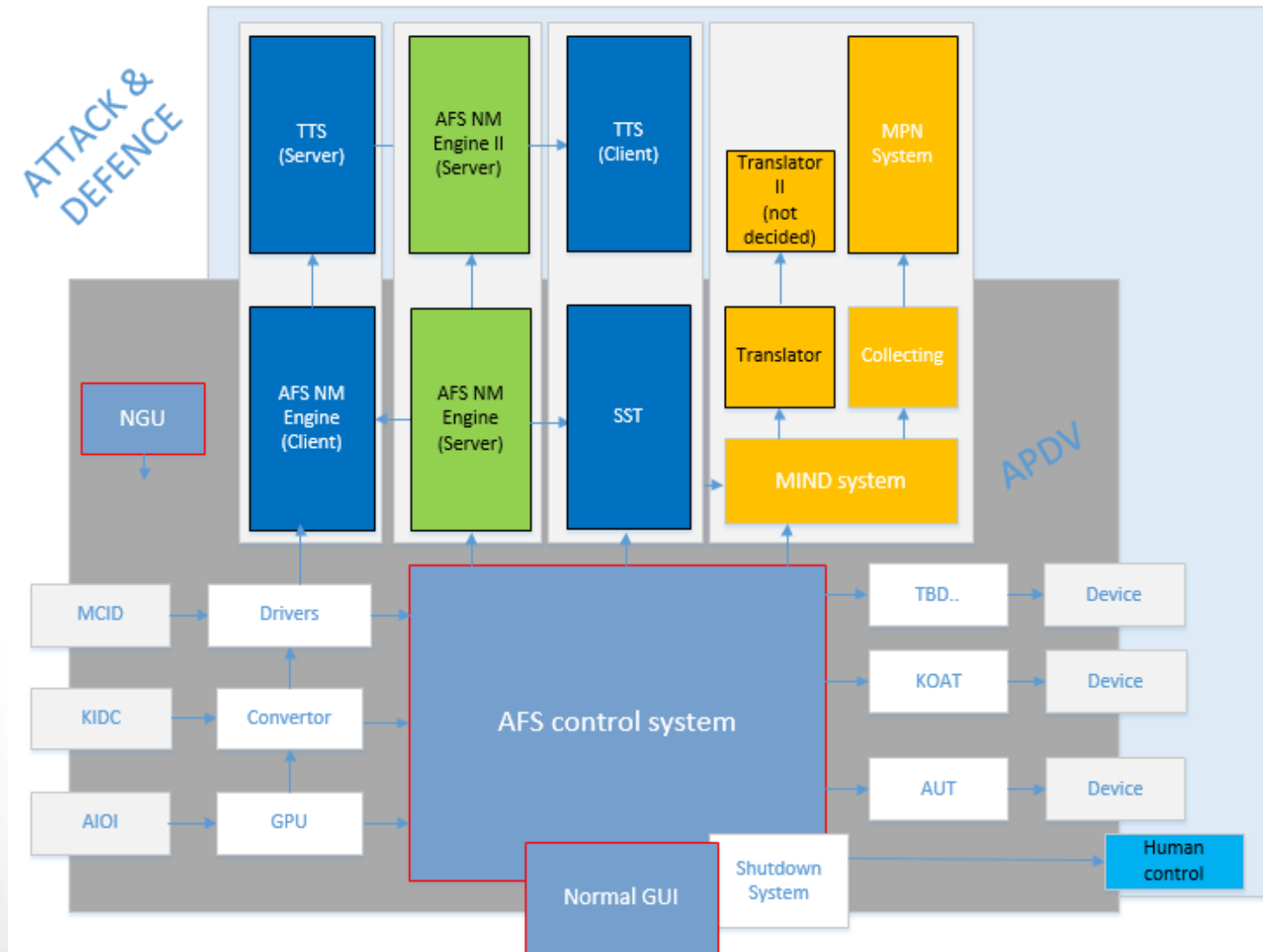
# Roadmap



# High Level Design - Architecture

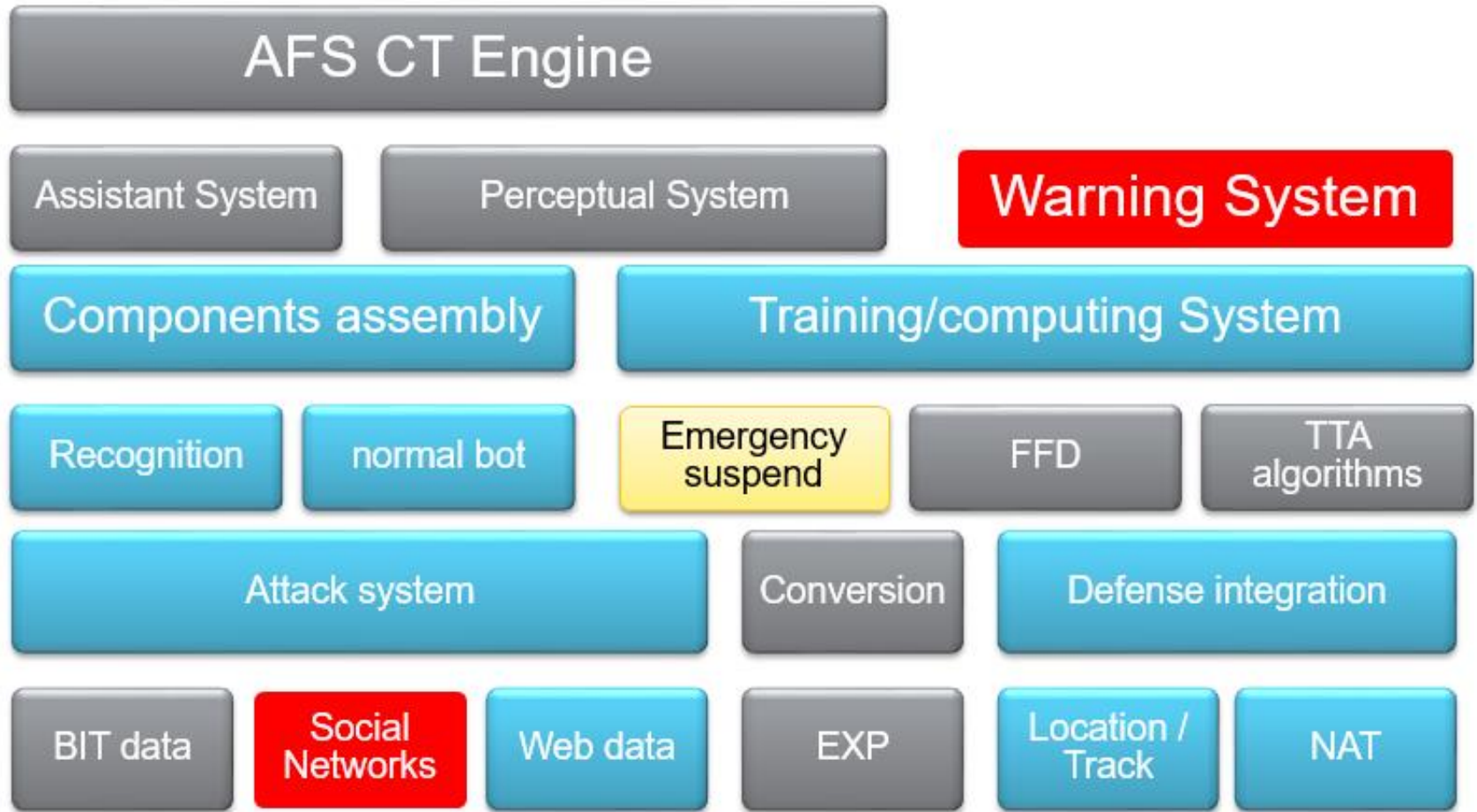


# High Level Design – System Design

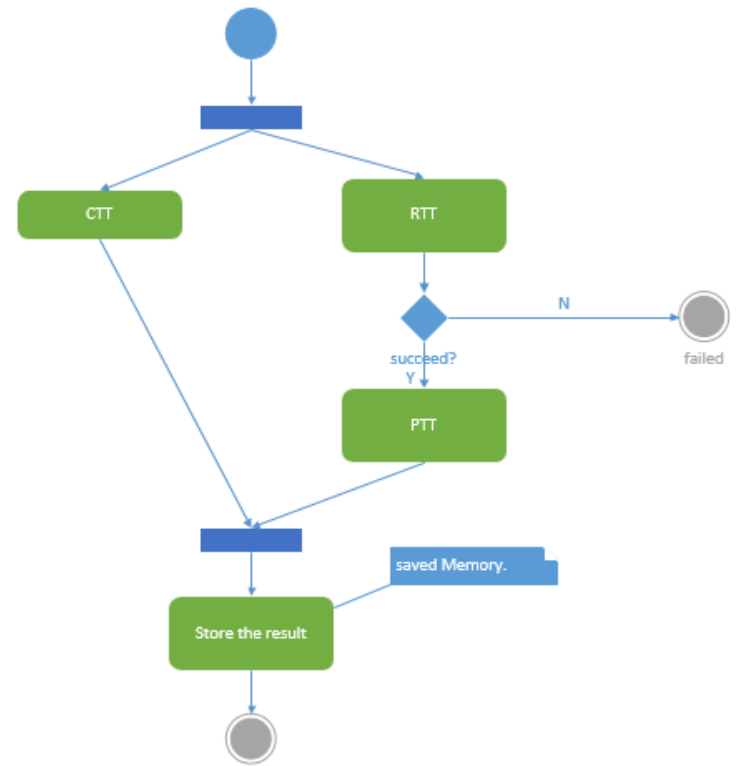
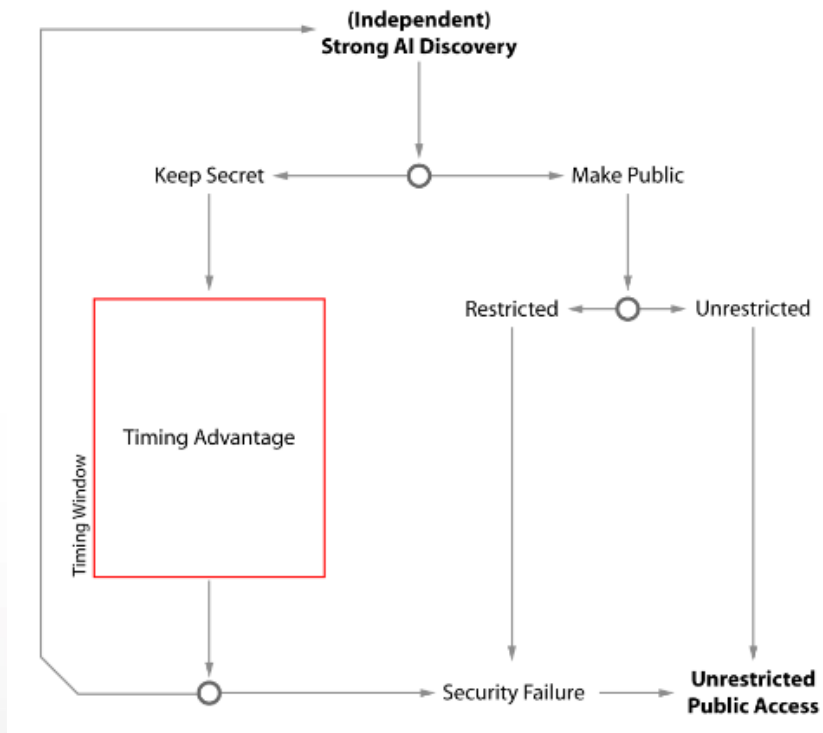




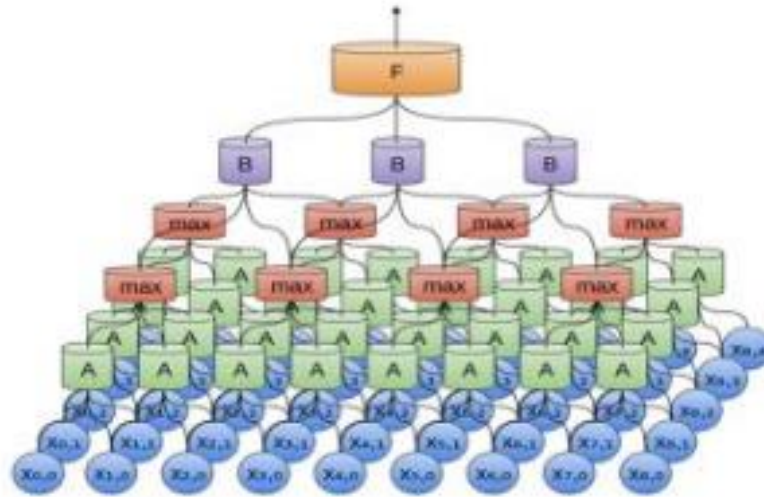
# High Level Design – Components Design



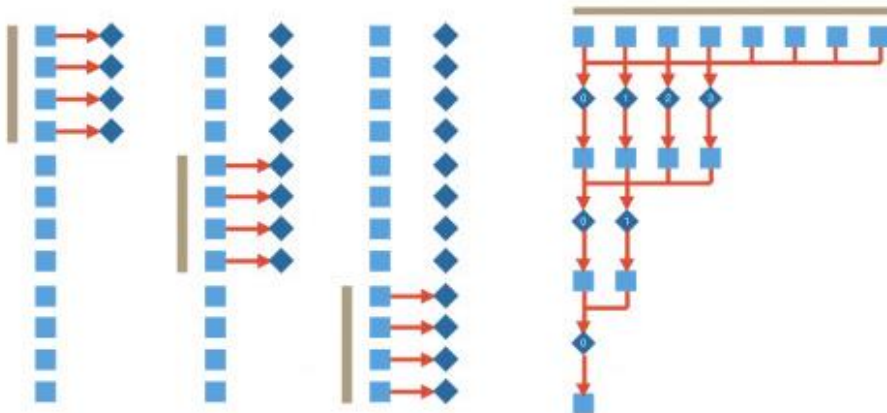
# High Level Design – AI Restriction Design



# High Level Design – Deep Learning Design

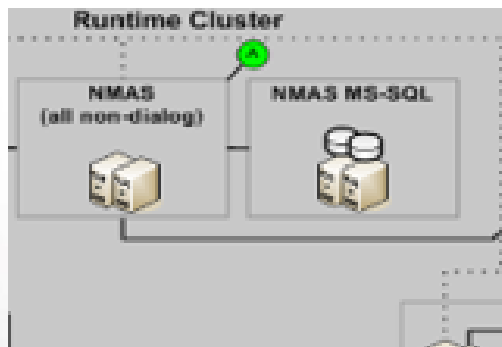
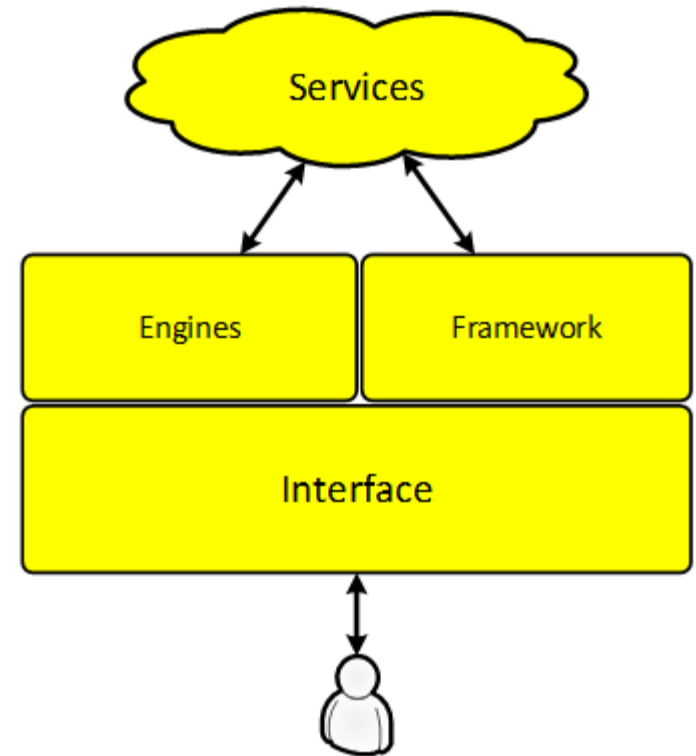
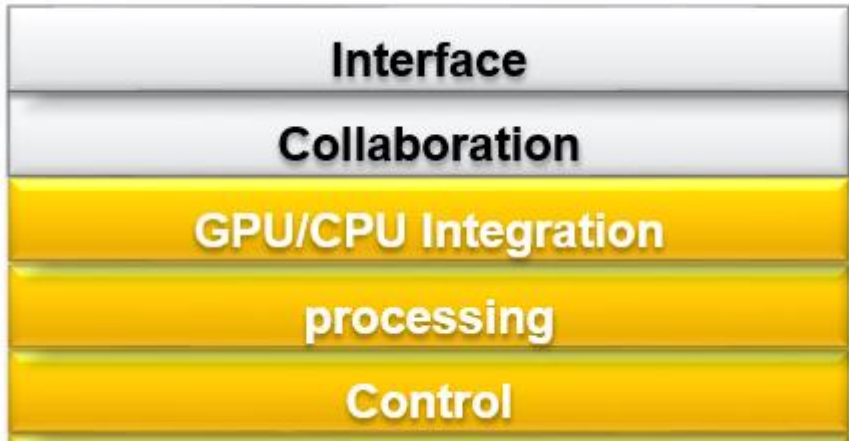


Map | Reduce | Scan | Sort . . .



```
def gradient(y, y_hat):  
    return y_hat - y  
  
def softmax(x):  
    x = np.exp(x)  
    row_sum = np.sum(x, axis = 1)  
    x /= row_sum.reshape((x.shape[0], 1))  
    return x  
  
def feedForward(X, W):  
    prediction = softmax(np.dot(X, W))  
    return prediction
```

# High Level Design – Service Calling Design



## Legal Disclaimer

---

- This Technical White Paper is for information purposes only. AFSecurity.IO does not guarantee the accuracy of or the conclusions reached in this white paper, and this white paper is provided “as is” .