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POWER OF OPPORTUNITY

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How APAC IOT Leaders are Handling Security—Next Secure 'Things' Roadmap

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Agenda

- IOT Landscape in APAC
- 6 IOT Security Worries
- IOT Leaders Security Strategy
- Roadmap to secure Next “Things”

One week without IOT Enabled Devices

- Dominican Republic Travel
- Opted to not use Smart Phone, No E-Metering, No Smart Parking , No Smart Banking , No Wearable Devices

The **Parque Colon** is a monumental tribute to Christopher Columbus

Image Source: Google Search

APAC Banks Adaption for Robots

Image Source: Google Search

Smart Cities Initiatives

Image Source: Smart City India

Telematics Insurance

Image Source: Google Search

API Banking & IOT Enabled Payment Devices

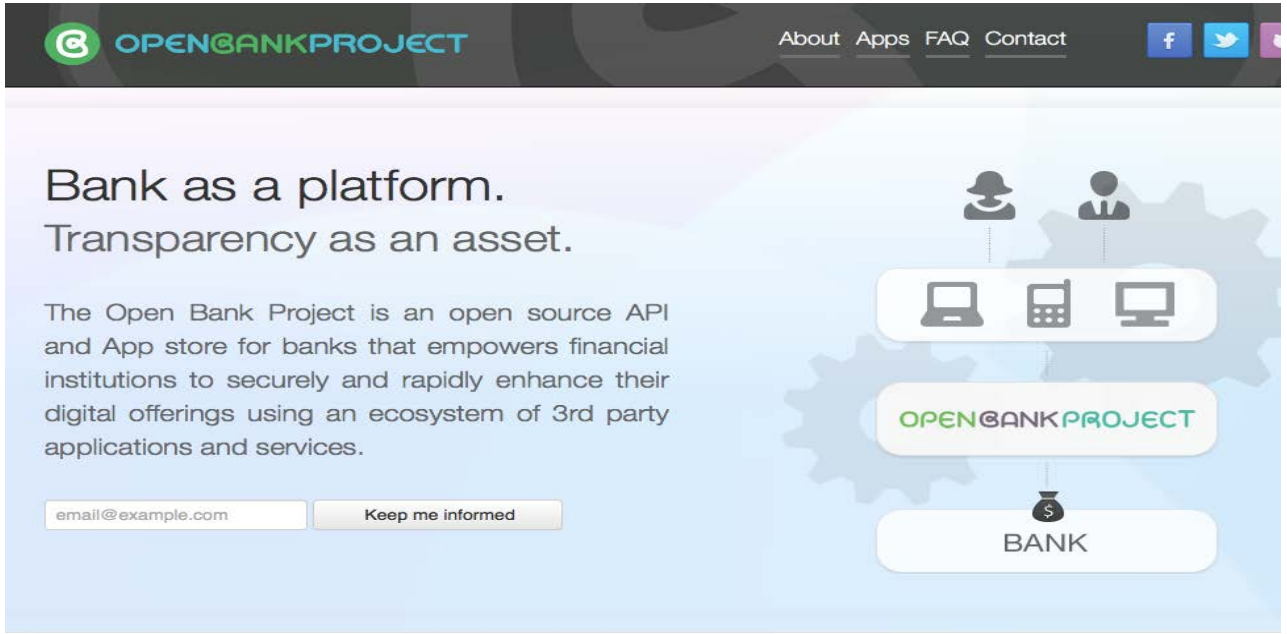


Image Source: Open Bank Project

Aadhaar Payments through Connected Devices

Image Source: UIDAI

Intelligent Devices in Customer Services

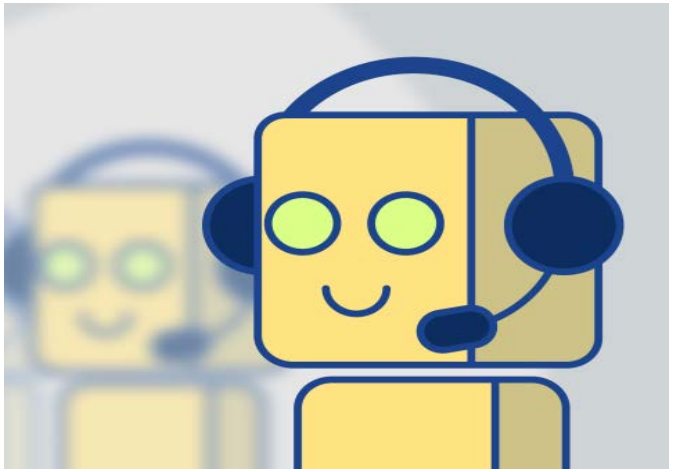
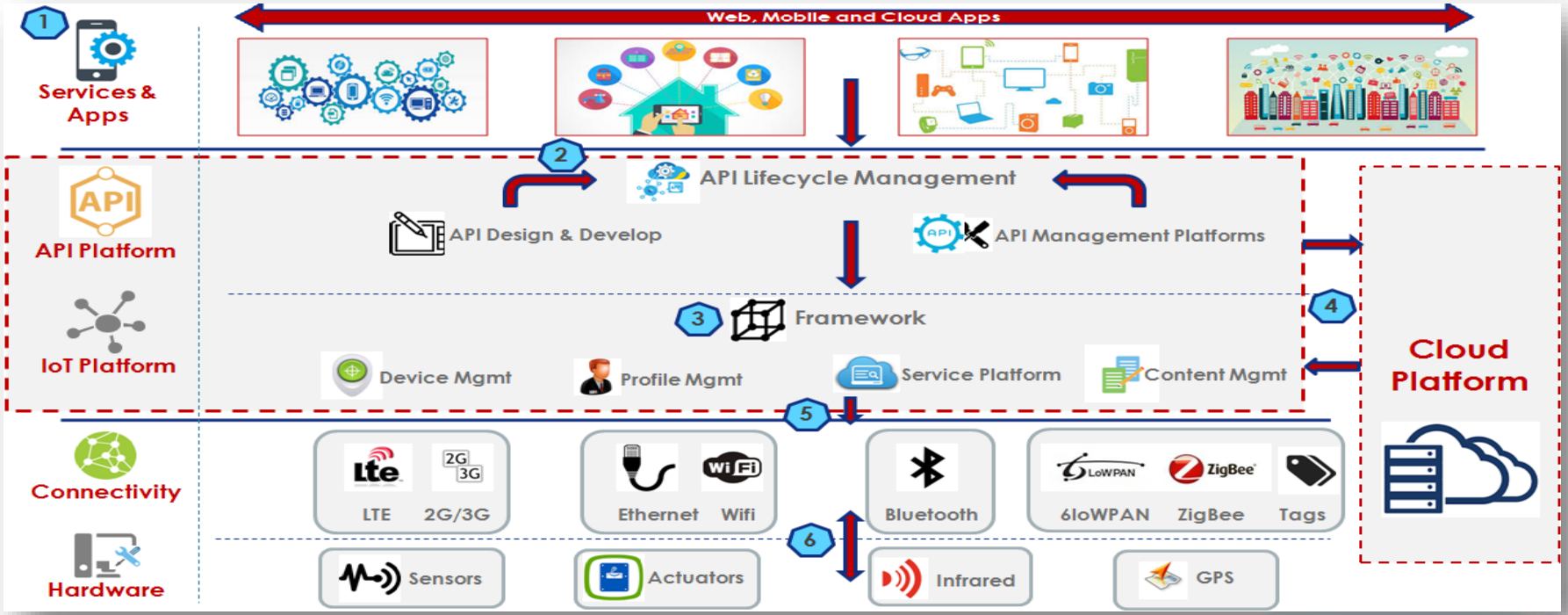


Image Source: Google Search

Source Code Quiz

```
main()
{
int i = 7;
printf("%d",i++*i++);
return 0;
}
```

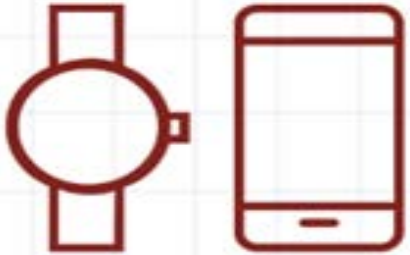
Internet of Things Architecture



Communications Security – Key Concern

How to establish security in communication channels from IOT Devices to Platforms?

6 IOT Security Worries



1 Insecure Devices

Attacks on IoT devices and their network interfaces are becoming very common. Attackers can eavesdrop and steal data. With the exponential growth predicted for IoT - It is only going to get worse.

Security Worries

2 Insecure Communication

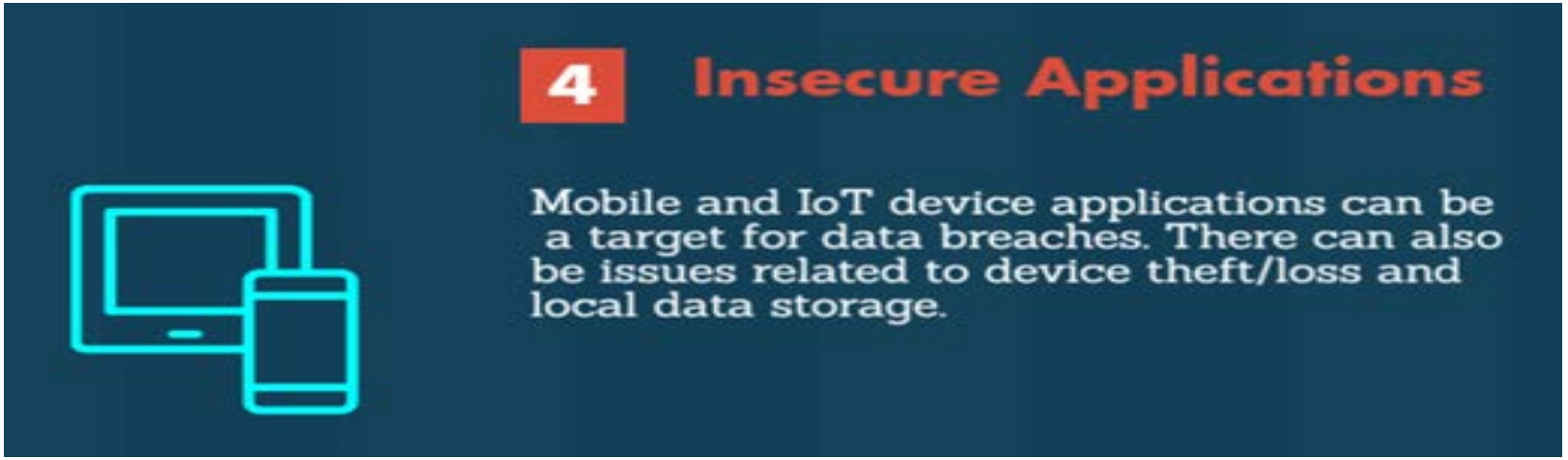
Insecure message transmission over various communication channels might lead to privacy issues and may also lead to fraudulent transactions.

Security Worries

3 Insecure Cloud

Cloud interfaces between IoT devices and platforms can be a target for data breach. Pay attention to cloud APIs, cloud platform, security configurations and data security controls.

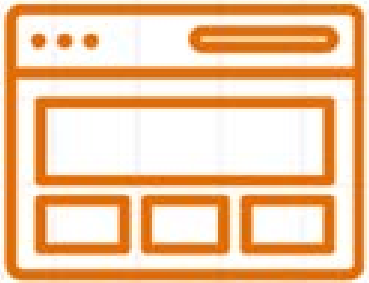
Security Worries



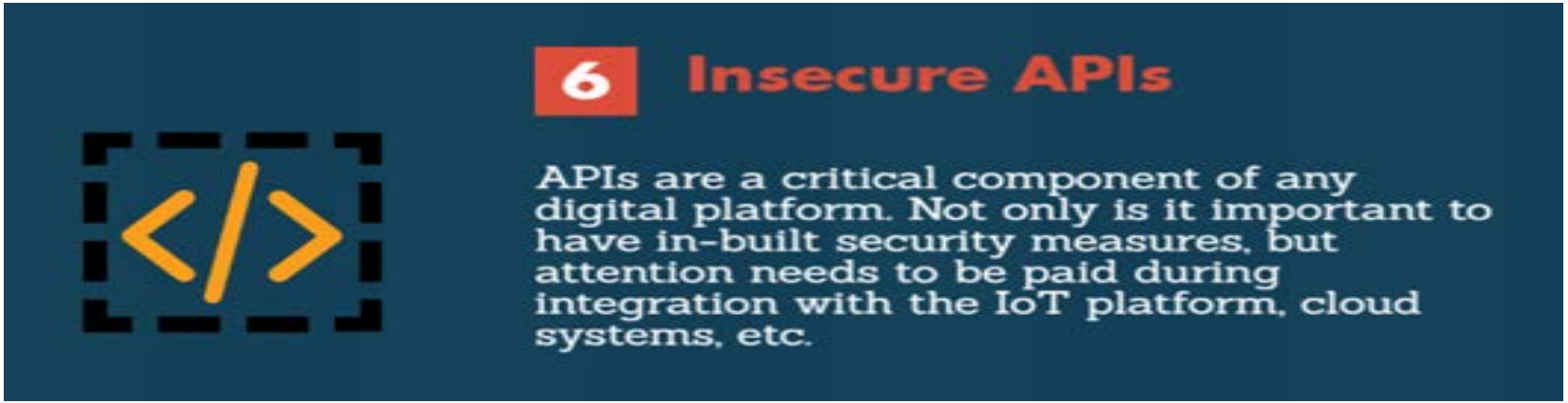
Security Worries

5 Insecure Web

IoT platform's web interface could be a target for attacks like SQL injection, XSS, CSRF and other web security attacks. Pay attention to implementation and configuration.



Security Worries



Source Code Quiz

```
main()
{
printf(“%d”, printf(“RSAC”));
return 0;
}
```

More Smart Devices = More (Sensitive) Data = Higher Risk

APAC IOT Leaders Security Strategies

- Central Banks Security Guidelines and Security Governance Framework Compliance for the **IOT Enabled Payment Devices**
- APAC Specific **Smart City Guidelines** like NYC Smart , Equitable City
- Mandate to use **secure** IOT Devices OS , Firmware's and communication Protocols

Security Strategies

- IOT Platform and API Management Platforms Integrations Policies and **Security Governance Framework**
- **SIEM Integrations and Policies Adaption** to have proper Security Incidence Management
- Strategies to adapt IOT and Cloud Security Guidelines from **NIST, OWASP, GSMA and IIC Security Framework** [WIP]

Roadmap – PPTA, Frameworks and Standardization

- **P**eople, **P**rocess, **T**echnology & **A**ssurance (PPTA) Program
- Security **Framework** Adaption
- **Standardization** of IOT Devices, Communications and Platforms Security

Apply

- Ensure to have secure communication Channels from IOT devices
- Implement secure IOT devices in payment industry
- Practice Smart Cities Guidelines to secure metering devices
- Monitor your IOT devices data logs

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Lets secure next Things for better future!

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