MAXIMIZING ROI WITH NATIONAL eIDs:

CONSIDERATIONS FOR A SUCCESSFUL DEPLOYMENT

Developing and implementing a **national program** for **electronic IDs (eIDs)** is a complex, time-consuming, and expensive undertaking.

Each country does things a little differently, but there are several things that all successful eID deployments have in common. Below some best practices, so national governments can ensure security and convenienc on the long run while reducing costs, working more effectively, and maximizing their return on investment

1. WHY GO FOR AN ELECTRONIC ID?

There are now dozens of countries worldwide that have upgraded their national identity programs to support **electronic IDs (eIDs)**, and more are on the way. The research company Acuity Market Intelligence predicts that, by 2018, there will be more countries issuing eIDs than those issuing traditional, non-electronic IDs, and there will be at least **3.5 billion eIDs in circulation globally**.

GREATER CITIZEN SATISFACTION

Digital IDs make it easier for people to **access government services** and enjoy the benefits of citizenship, and that helps increase citizen satisfaction and engagement.

LOWER TRANSACTION COSTS

eIDs are read and authenticated by dedicated machinery, they increase automation and lower the cost of each transaction as citizens can interact with **automated kiosks** or **online services**.

INCREASED SECURITY

The eID format, based on smartcard technology makes **citizen data more secure**, and as a result helps combat identity theft and reduce fraud.

2. WHERE TO START: VISION, LEGAL MANDATE, TECHNOLOGY

There are **three things** needed to create a strong foundation for a **nationwide eID** program: a clear vision, a legal mandate, and a strong technical framework.

1. BE CLEAR ABOUT WHAT YOU'RE BUILDING

It's important to create the right program for your needs. Begin by defining the **eGovernment strategy** and derive the respective use cases and business models for the eID program accordingly.

2. MAKE IT MANDATORY

Clearly define the use cases that mandate the secure authentication of a citizen and establish the necessary legal framework to support those use cases. The legal framework ensures that any rules for the use of eIDs, especially with services requiring a high level of trust, such as opening a bank account, will be enforced.

3. IDENTIFY A BASELINE CONFIGURATION

Create a solid starting point by defining the **technology framework** and its **baseline functionality**. The baseline configuration should create a generic authentication token for all the current and planned services.

3. CREATE A FOUNDATION FOR GROWTH: THE BASELINE CONFIGURATION

Having a solid baseline configuration creates a strong **foundation for growth** and saves work over time, since there's less need to rework the architecture or change formats as the program evolves.

The baseline configuration should **verify identity**, as required by law enforcement, government programs, private-sector services, and/or border-control agencies. Here are a few other things to consider, since they can **lower the total cost** of ownership on the long run while ensuring security scalability and flexibility for future enhancements and programs extensions.

CONTACTLESS INTERFACE

COMMON CRITERIA CERTIFICATION

JAVA CARD/ GLOBAL PLATFORM OS

ICAO CONFORMANCE

SECURITY SPECIFICS

The **security architecture** is, of course, of paramount importance. Here are some recommendations for creating a baseline configuration that provides the necessary levels of security to protect data and combat fraud.

DATA ACCESS CONTROL

PUBLIC KEY INFRASTRUCTURE (PKI)

MULTI-FACTOR AUTHENTICATION

4. ANTICIPATE VULNERABILITIES: EVALUATE THE PRE-ISSUANCE PROCESS

Deploying a **solid security architecture** on the card itself is a vital part of the process, but the card architecture doesn't address vulnerabilities in the stages of the card's production.

To identify **potential vulnerabilities** during the pre-issuance process, it's important to consider each step in the eID's creation.

5. PUT THE PIECES IN PLACE: IMPLEMENTING THE eID SYSTEM SOLUTION

Developing the overall system solution is another time for careful planning, so as to increase efficiency, avoid unnecessary delays, and reduce the duplication of effort. A carefully designed ecosystem increases return on investment by streamlining steps, simplifying processes, and lower overall cost.

PERSONALIZATION

Maintaining high security is one of the most important factors in effective personalization.

ENROLLMENT CENTERS

These are brick-and-mortar locations that are properly staffed and equipped with the tools needed to support a smooth, efficient, and cost-effective enrollment process.

ISSUANCE

Customer service and ease of use are important considerations for the issuance process.

eID SYSTEM SOLUTION

CIVIL REGISTRY

Having a civil registry, or a nationwide database of citizen information, makes it easier to know who is eligible to receive an eID, access services, and enjoy other rights of citizenship.

PRODUCTION OF eIDs

As mentioned in the section on mitigating risk during the pre-issuance process, it's important to implement stringent security practices for the production, shipment, storage, accounting, and distruction of blank smartcard documents.

IT INFRASTRUCTURE

The card readers, computer networks, and software components, along with the personnel needed to install and maintain them, are key to an effective deployment, but can also add cost.

With some careful planning, a long-term commitment to establishing **eGovernment** processes, and the right team of experts, **implementing a nationwide eID program** can create a quantifiable, sustainable return on investment.

To learn more about how NXP helps countries design, develop, and deploy eIDs, visit www.nxp.com/smartgovernance.