Advanced Card Systems Ltd.
Card & Reader Technologies

APG8201 PINhandy 1

OTP Generator

Product Presentation

www.acs.com.hk

Presentation Rundown

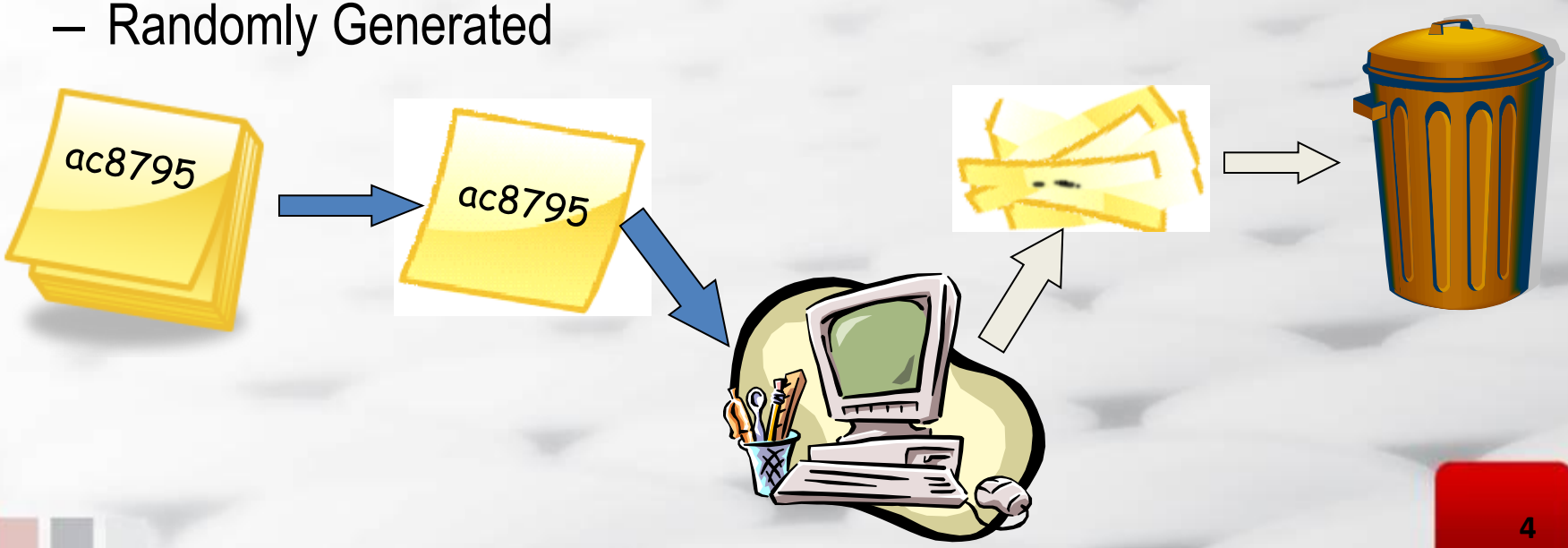
- Introduction
- Product Overview
- Product Features
- Product Value
- Product Applications
- Question and Answer

Introduction

- As technology becomes more and more sophisticated, fraud-related incidents in the banking sector also become more prevalent.
- These occurrences generate billions of dollars worth of losses and bring distress among credit and debit cardholders. Because of these, certain security measures and systems are created.
- In this regard, the APG8201 PINhandy 1 OTP Generator is a reliable tool that can be utilized to fight these occurrences.

Introduction: One Time Password

- One Time Passwords are passwords that can be used only ONCE
- Types of OTPs:
  - Predefined from a list
  - Randomly Generated



Introduction: One Time Password

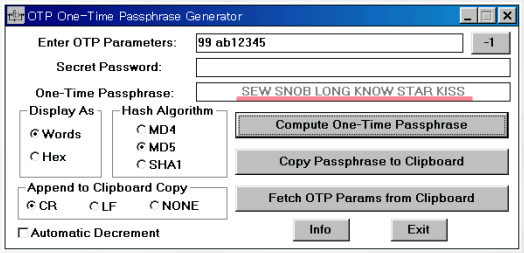
- More secure since its almost impossible to hack or phish.
- No need to remember multiple passwords for different systems.
- Dynamic passwords: Unique Password for Each Person

PIN	VS	OTP
Static Password		Dynamic Password
Memorization of multiple passwords		Little Memorization or no Memorization at all
Set of passwords is personalized		Two people will never have the same set of passwords

Introduction: OTP Devices

- Devices or applications that can generate one-time passwords
- Can be classified into Mathematical algorithm type, time-synchronized type and challenge type
- More secure than using traditional printed OTP list

OTP scratch card



OTP applications

OTP devices

Product Overview

- Supports Challenge-response and Transaction Data Signing Modes
- Requires the presence of a smart card, PIN and challenge code prior to the generation of the OTP

Product Overview

- PC-linked Mode
- Standalone Mode
- USB 2.0 Full Speed
- PC/SC 2.01 Secure PIN Entry Support
- Handheld Device with Compact and Portable Design

Product Features

- Dimensions: 95mm X 60mm X 11mm
- Weight: 49g (w/ Batteries)
- Uses 2 CR2302 Batteries for Standalone Mode
- Durable Tactile Keypad with 20 Silicon Rubber Keys
- High Contrast, 16-Character, 2-Line Alphanumeric LCD
- Supports Full-Sized Microprocessor cards (T=0 and T=1 protocols)
- Supports EMV Cards

Product Features

Authentication Modes (L-R)
1 **OTP**
2 **Challenge-response**
3 **Signature**
4 **TDS**

Card Slot
(Contact Type Connector)

LCD (2x16 Characters)

Large Area for Logo

Numeric Keys

USB Port

Function Keys:
1 **Menu**
2 **Cancel (C)**
3 **Backspace (CL)**
4 **Confirm (OK)**
5 **ePurse**

Product Features

Compliance and Certifications

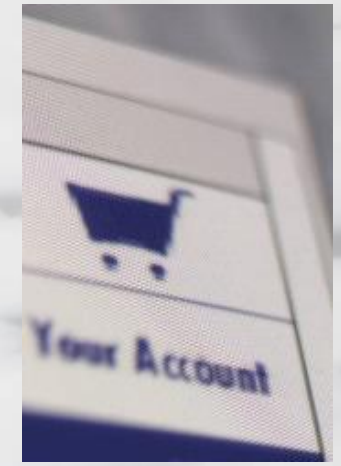
- MasterCard® Chip Authentication Program (CAP)
- MasterCard® PIN/Perso-less Authentication (PLA)
- VISA Dynamic Passcode Authentication (DPA)
- UK APACS
- EMV Level 1
- CE/FCC
- RoHS
- CCID
- ISO-7816
- Microsoft® WHQL
- PC/SC 2.01 Secure PIN Entry

Product Value

- It is specially designed to safeguard users from emerging fraud attacks like Card-not-Present (CNP) fraud and emerging Man-in-the-Middle attacks.
- Key generated will be based on the smart card to be used with the device
- It provides proof that a card is present during an OTP process.
- The PIN is securely entered on the device rather than the vulnerable PC or workstation, hence eliminating the possibility of a Virus/Trojan getting hold of the PIN.

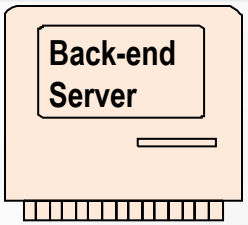
Product Applications

- e-Banking
- e-Payment
- Dynamic One-Time Password
- Remote Authentication
- Digital Signature



Product Applications

To ensure security, hash functions are applied in every data transmission process



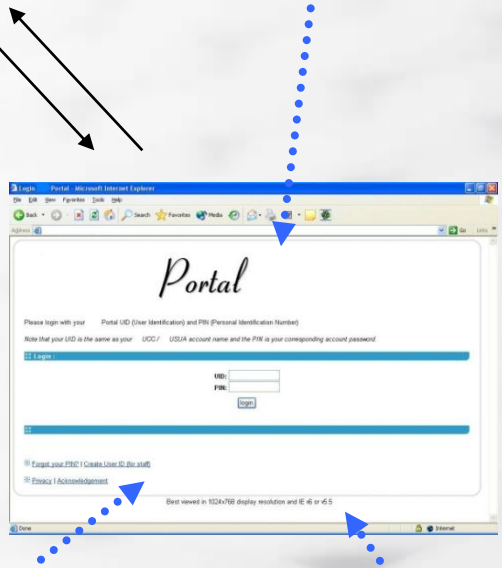
Login: Admin_U
PIN: UpMan396453

Retrieve financial statements to review and further process: Admin / Management:

(7:00 a.m. London)
Submit audited financial statements: Auditor A

197328

Login: Aud_A
PIN: Apass197328



(11:00 p.m. Beijing)
Retrieve financial statements to be audited: Auditor B

284852

Login: Aud_B
PIN: xypqr284852