



# ATN-Emulator Enterprise Automated Testing System Integration



North American  
Distributor



ATAAS  
TECHNOLOGY

# ATaaS Technology Overview

ATaaS (Automated Testing as a Service) is an end-to-end automated POS (Point of Sale) testing system with a robotic arm for unattended PinPad operation. ATaaS, also referred to as the ATN System, is comprised of Hardware, Firmware, and Software

## Consists of 3 Hardware Components

- ATN-CPU

  - Houses Emulated Peripherals

  - Controls Operation of all devices and software components

- ATN-GPD

  - Houses PinPad

  - Robot Arm for PinPad Operation

- ATN-SVR

  - TestLink: Test Automation Software

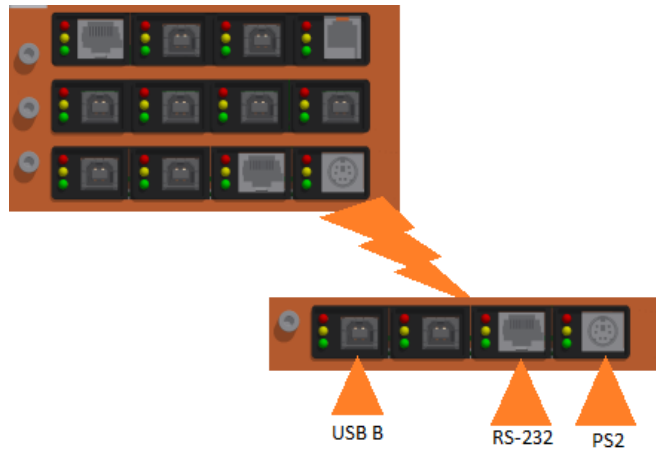
  - Mantis: Issue Tracking Software

  - DBs: Configuration, Collateral Data, etc

# ATaaS Technology Overview



ATN- CPU is comprised of 2 components. The right side in the figure below depicts the standard Windows processor component. The left side depicts the component containing proprietary Emulated / Virtualized POS device connections.



The ATN System does not require physical devices or peripherals to perform automated testing. Rhiscom has developed proprietary emulated devices to take the place of physical peripherals, thus eliminating the need for physical devices.

Emulated devices are connected to the POS system using the same cables as physical devices.

The POS system operates as if physical devices are attached.

# ATAaS Technology Overview

The screenshot displays a POS system interface with the following components:

- Operator Display - 640x480 60.0 Hz (344, 301):** Shows a sales transaction screen for "TOSHIBA MOD SUREPOCS ACE CC 98-101". The screen displays "THANK YOU" and "COME AGAIN" messages. A "Next Item" section includes buttons for Quantity, Refund Item, Weight, Item Discount, Cancel Item Discount, Tare, Price Override, Void, and Other Common. The "Balance Due" is \$0.00. The bottom status bar shows "12:35 PM", "1/10/14", "Tommy", and "Register:001".
- POS Printer:** Displays a receipt with the following text:

```
Cash 50.00
CHANGE 24.90
TOTAL NUMBER OF ITEMS SOLD - 3
01/10/14 12:25pm 1 1 225 1
THANK YOU FOR VISITING WITH US
IN NRF 2014
Provided by Rhiscom
----- cut -----
CASHIER PICKUP 43
01/10/14 12:25pm 1 1 226 1
PI Cash 100.00
Cash 100.00
TOTAL PICKUP 100.00
OPERATION COMPLETE 01/10/14 12:25pm
----- cut -----
```
- Customer Display:** Shows a "Welcome!" message and a keypad interface.
- Software Interface:** Includes a menu on the left with "Learning", "Execution", and "Tools" tabs. The "Execution" tab shows a tree view of test plans under "DEMO-GUI-NRF2014".

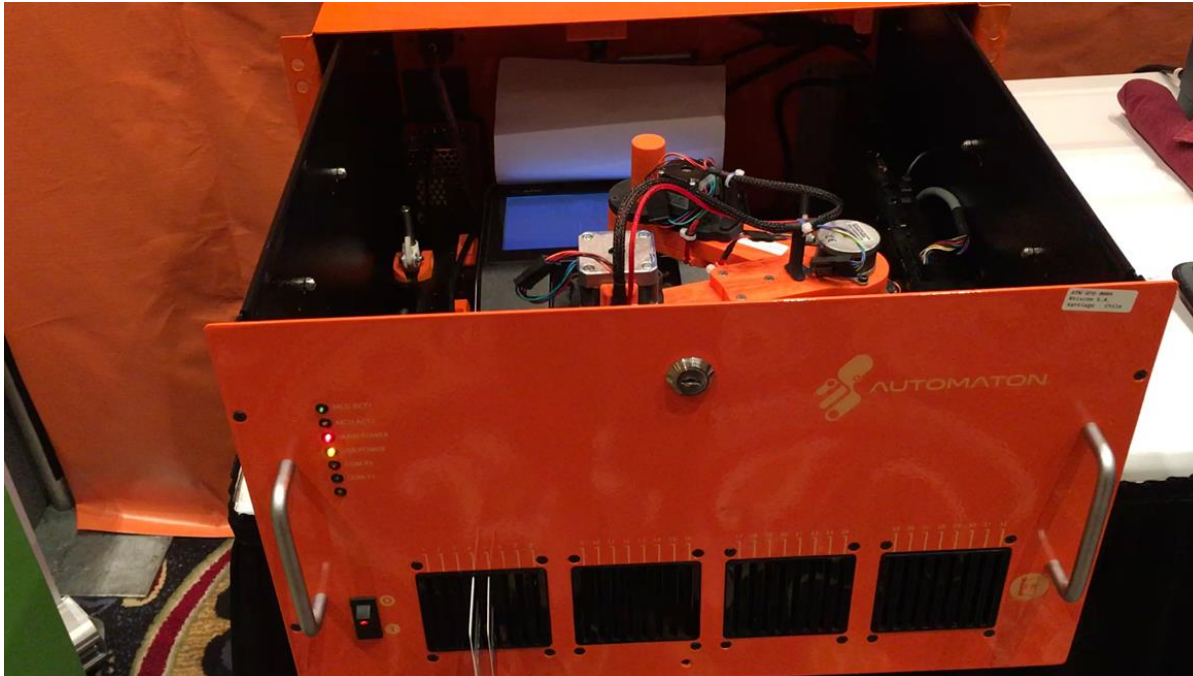
# ATN-GPD Functionality

- Robot
  - Presses the key pad for Pin Entry
  - Operates the touch screen
  - Draws Signatures on the touch screen
- MSR Swipe
- Insert the Smart Card to read the chip
- Integrated Camera
  - Captures Screen Images
  - OCR for Text
- Ingenico
- Verifone
- Equinox



# ATN-GPD Functionality

ATN-GPD with 2 EMV Chip Cards  
Standard Configuration = 32 Cards



# ATN-GPD Robot Operation

ATN-GPD Robot



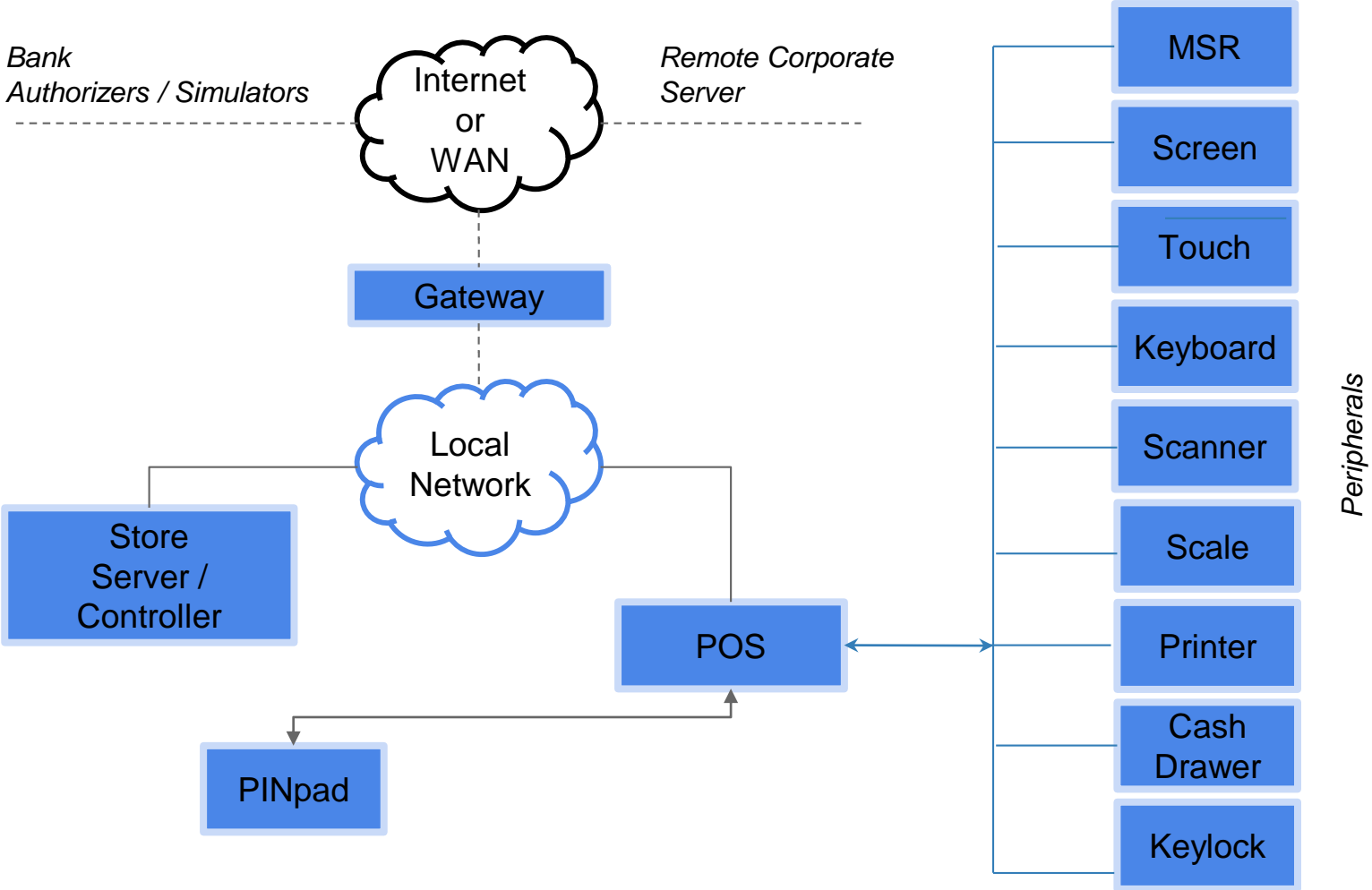
## ATaaS End-to-End Solution vs. ATN-Emulator Integration

- ATN-SVR is replaced with Enterprise Automated Testing System
- ATN-CPU is replaced with ATN-Emulator
  - Standalone box containing emulators
- ATN-GPD remains
- Integrates with Enterprise Automated Testing Platform
  - Selenium
  - Appium
  - HP HLM/QC
  - Eggplant Functional
  - UFT

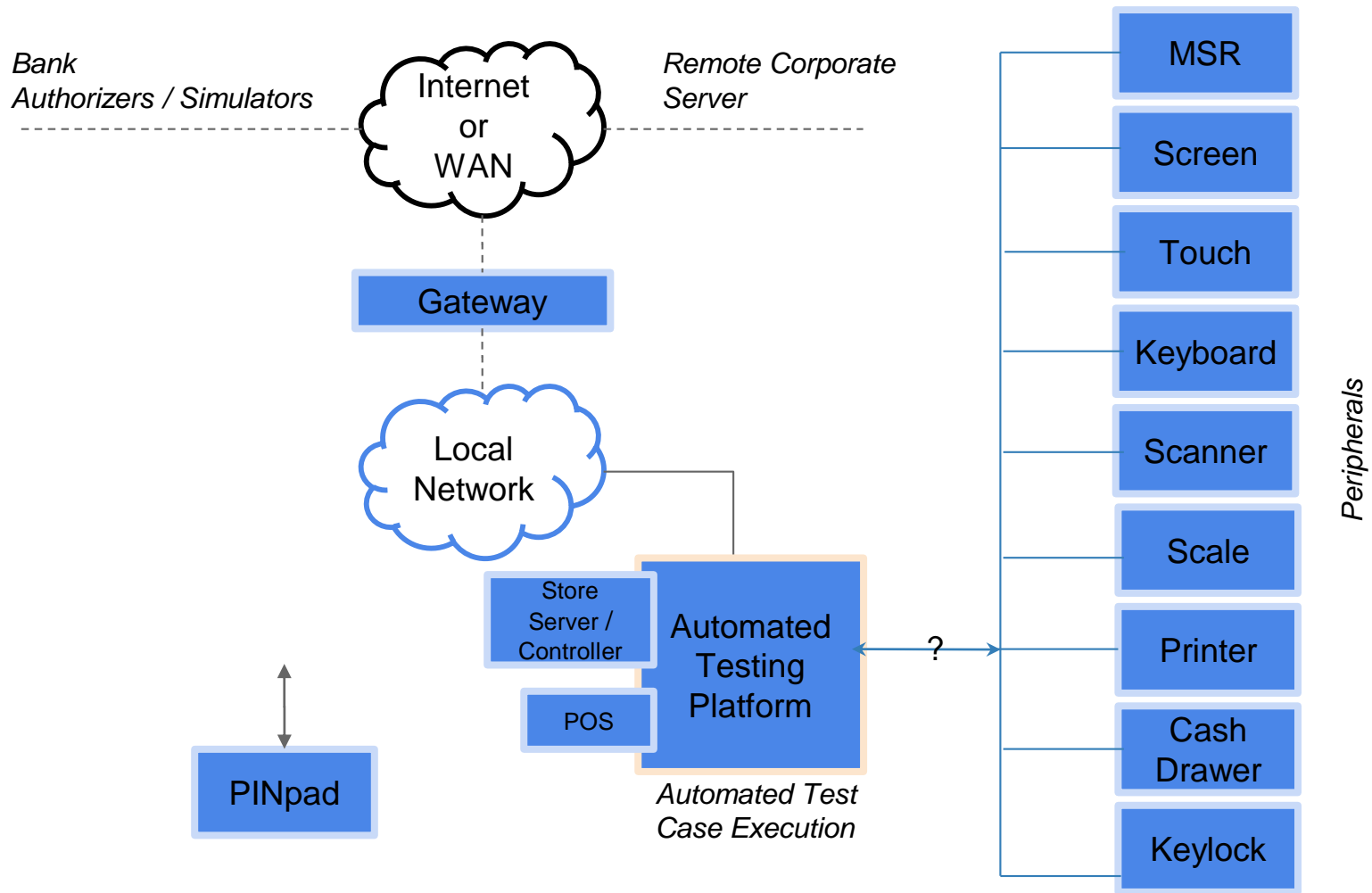


## ATN-Emulator Integration Architecture

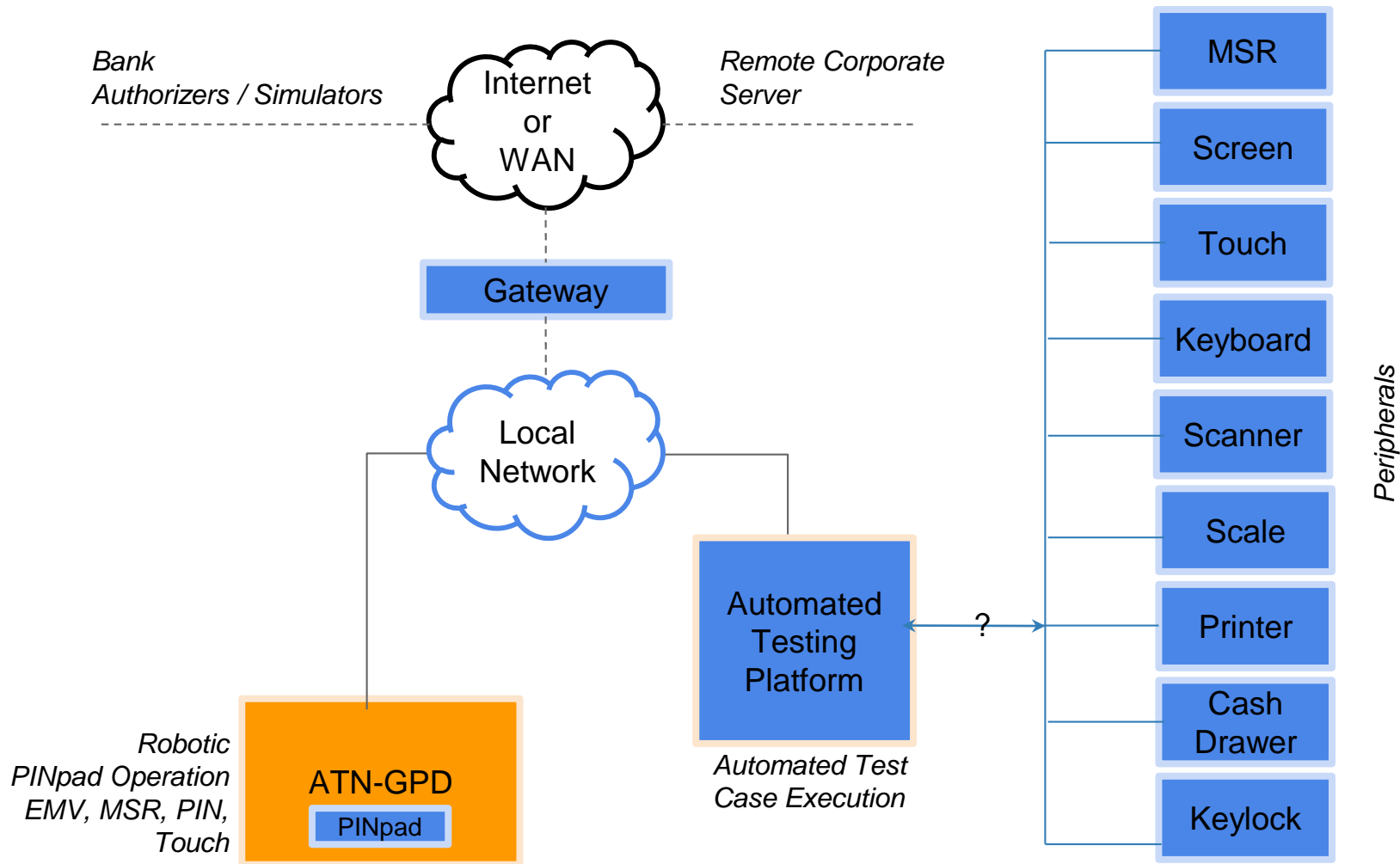
# Manual POS Testing Architecture



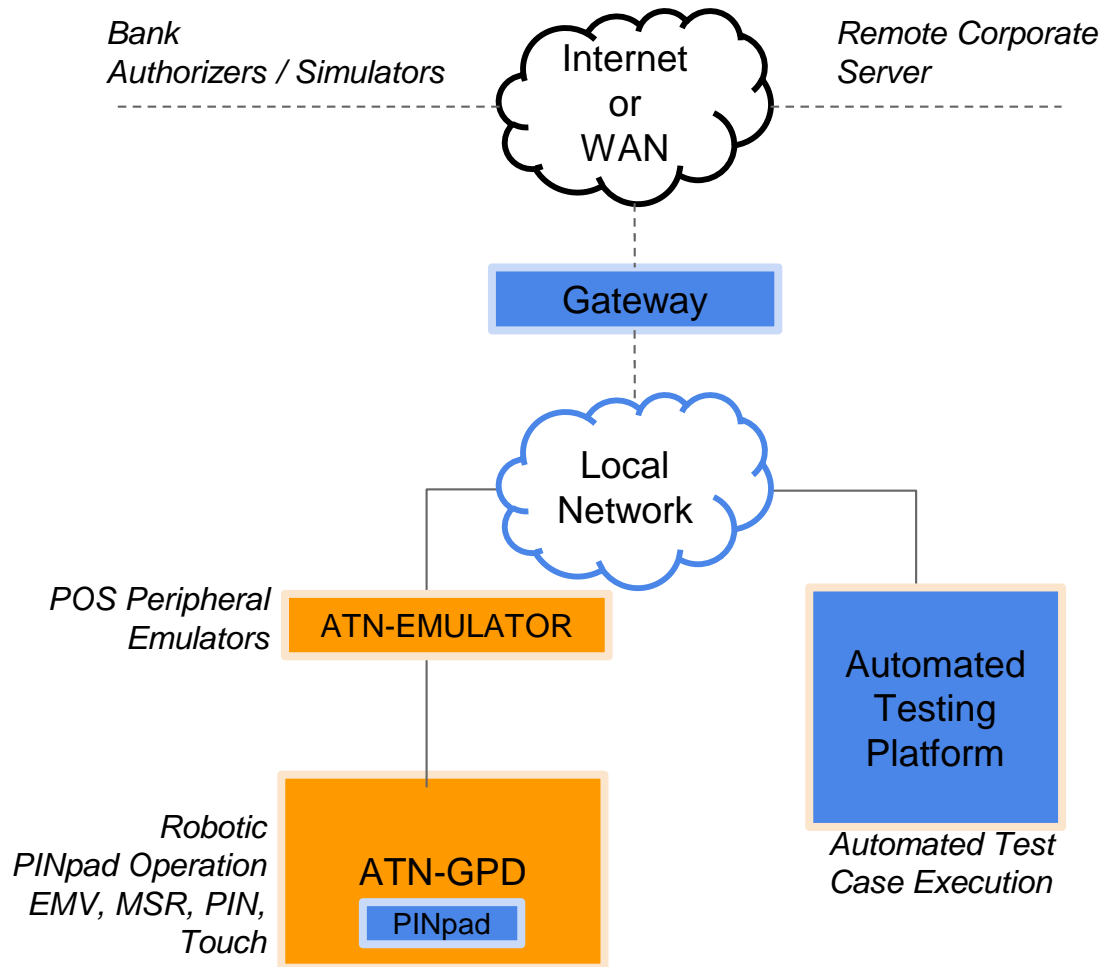
# Transition to ATN-Emulator Integration



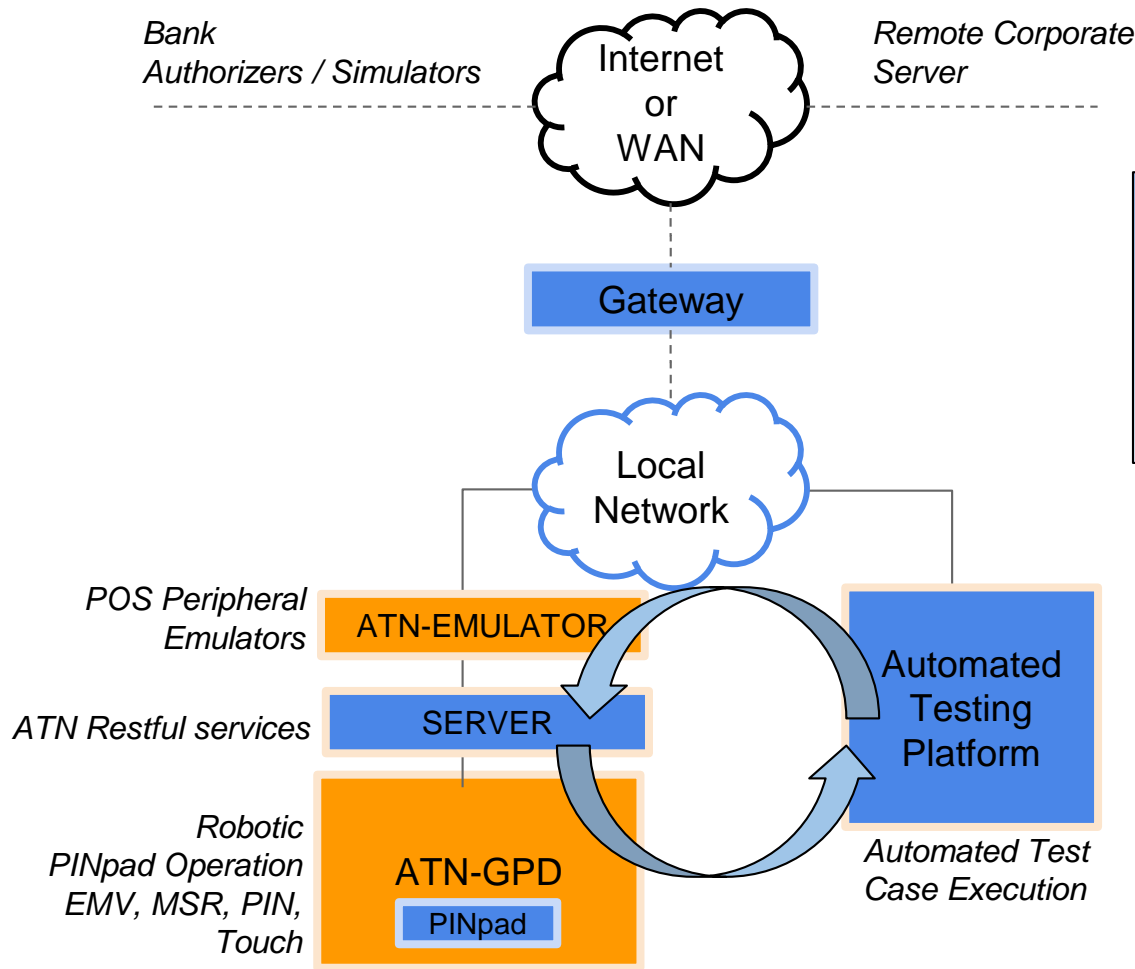
# Transition to ATN-Emulator Integration



# Transition to ATN-Emulator Integration



# ATN-Emulator Architecture



ATN Restful Services provide interface between Enterprise Automated Testing System and:

1. ATN-Emulator for peripheral devices
2. ATN-GPD for PinPad Operation