



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

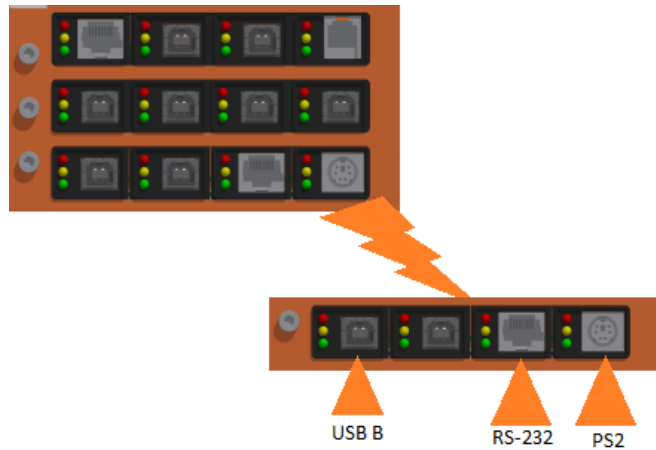
 - Mantis: Issue Tracking Software

 - 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" menu includes options like 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 "Learning" pane on the left with a "Demo Test Plan 1" and a "Tools" pane with a "Synchronize" button. The top status bar shows "atn-client (CLIENTE) (441 977 962) - TeamViewer - Licencia gratuita (solo uso no comercial)" and "Automaton - 1.0.26".

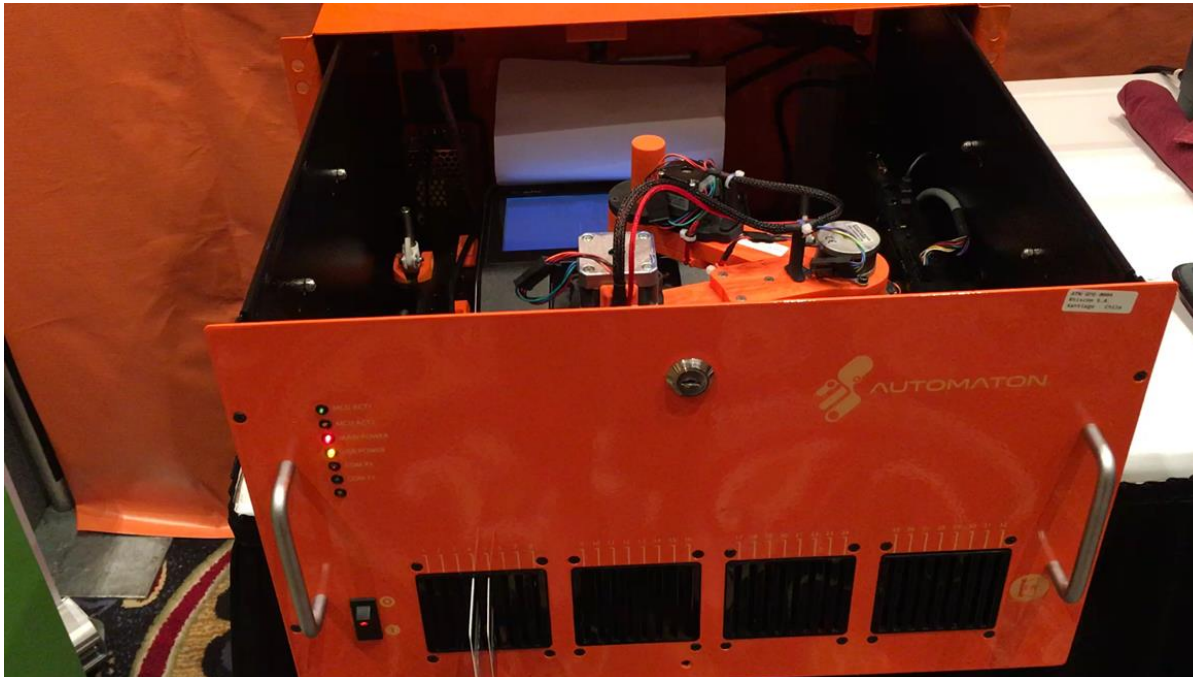
ATN-GPD Functionality

- 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

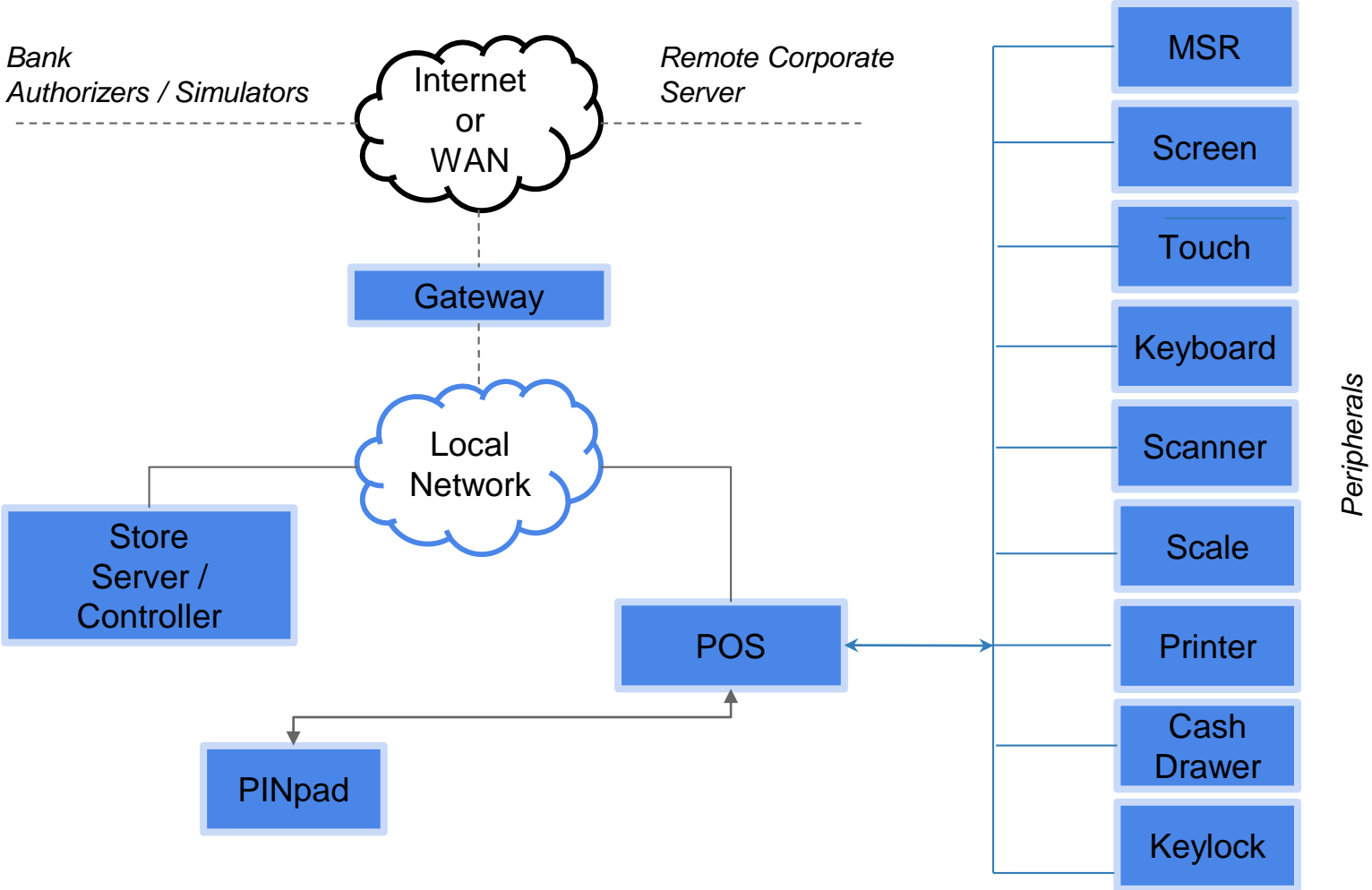


ATaaS End-to-End Solution vs. ATN-Emulator Integration

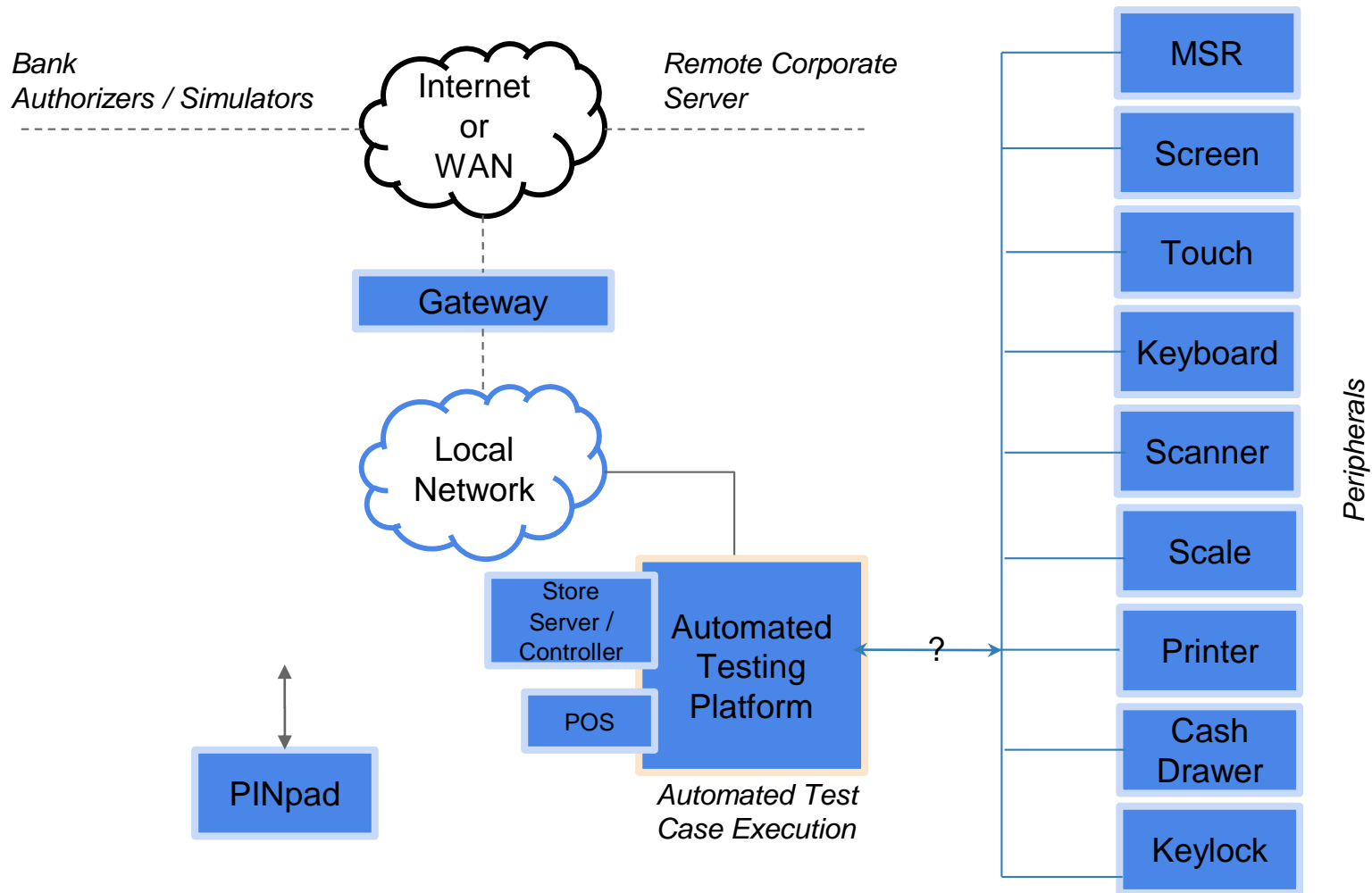
- ATN-SVR is replaced with Enterprise Automated Testing System
- ATN-CPU is replaced with ATN-Emulator
 - Standalone box containing emulators
- ATN-GPD remains
- Integrates with Enterprise Automated Testing Platform
 - Selenium
 - Appium
 - HP HLM/QC
 - Eggplant Functional
 - UFT

ATN-Emulator Integration Architecture

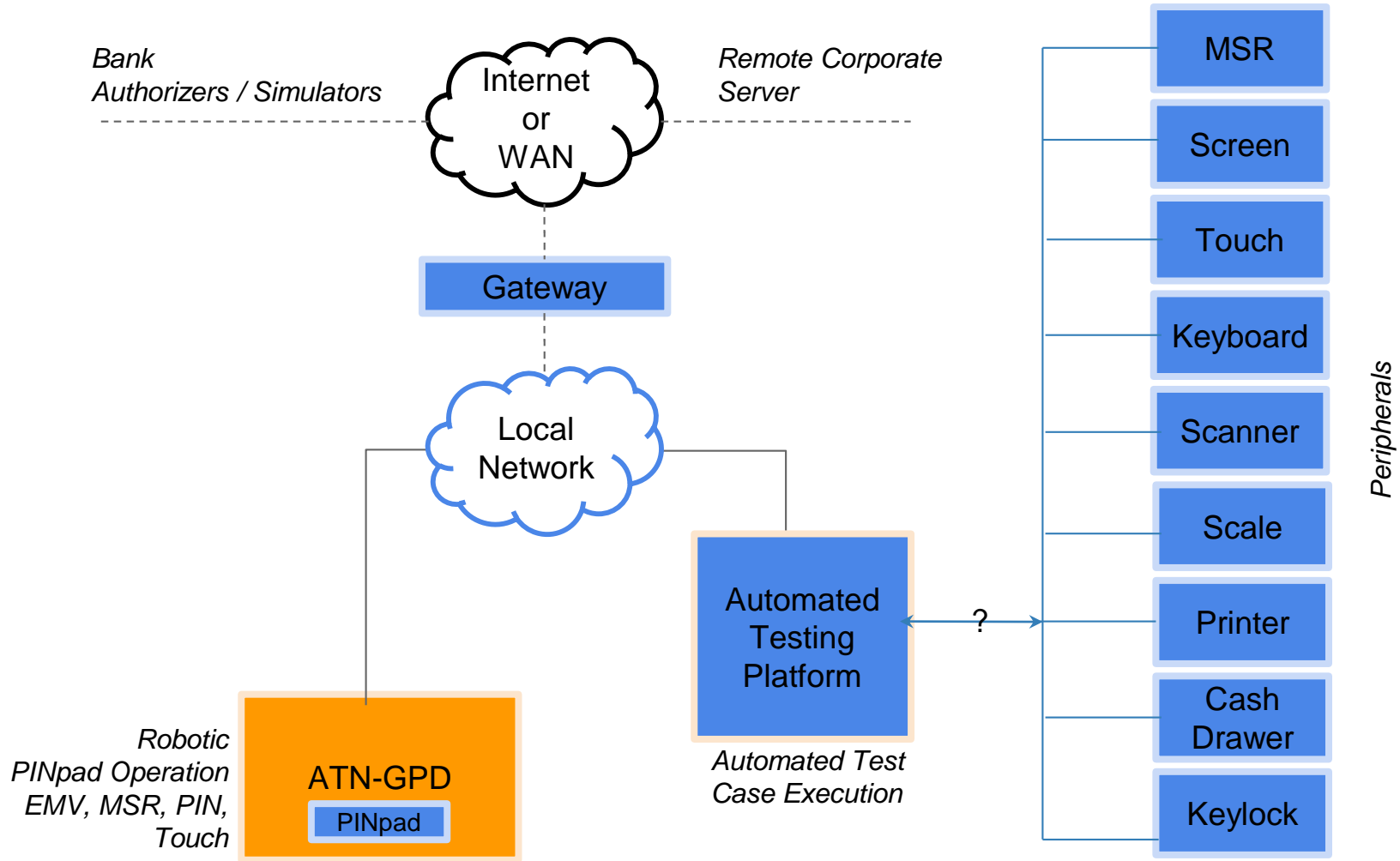
Manual POS Testing Architecture



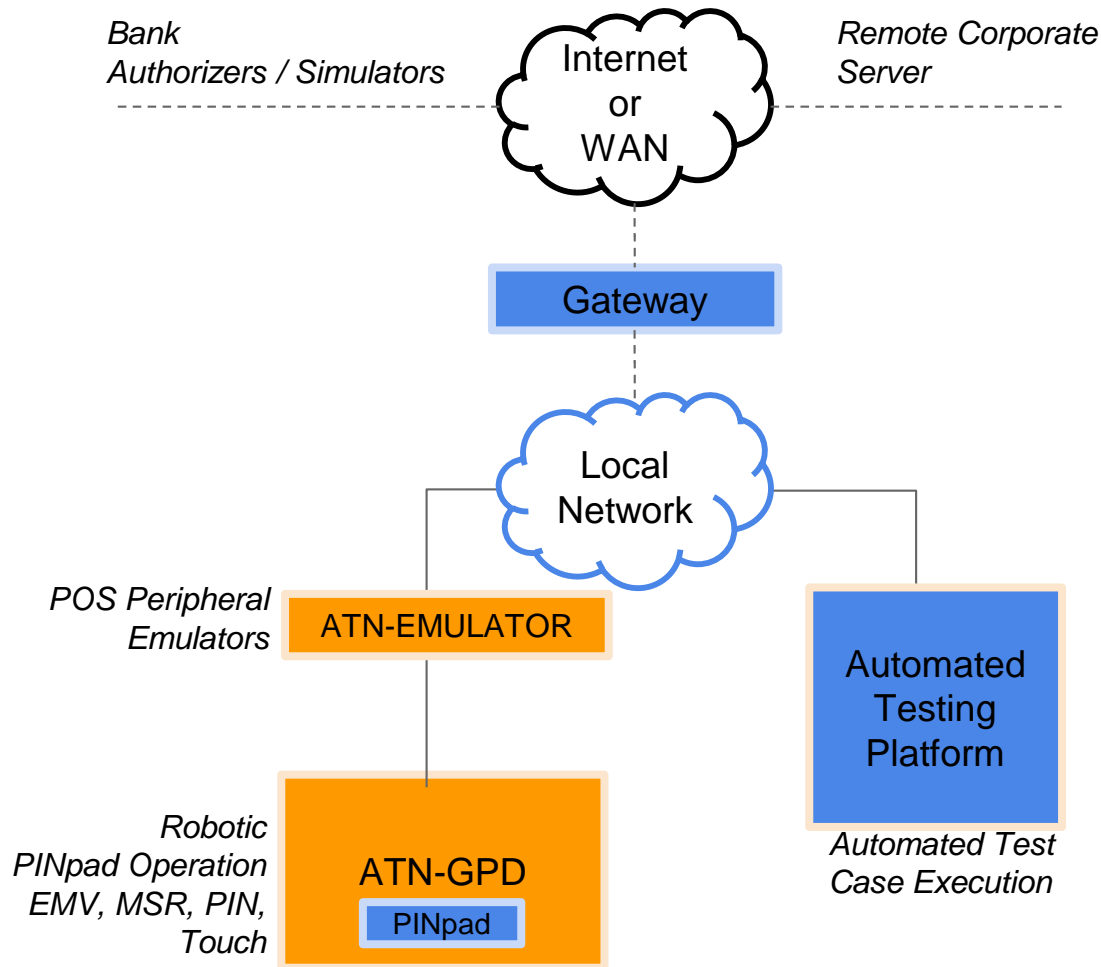
Transition to ATN-Emulator Integration



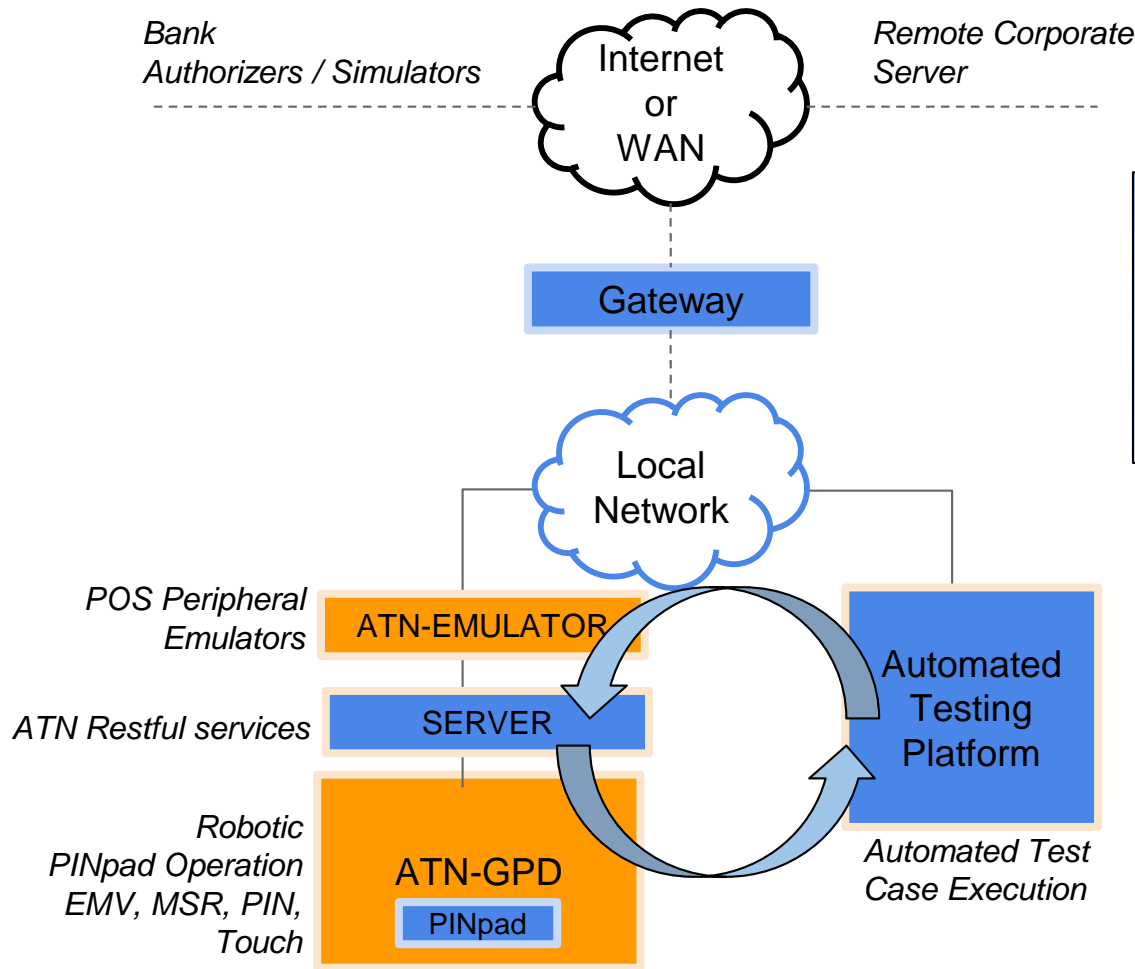
Transition to ATN-Emulator Integration



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