

Infrastructural Cost Reduction and Optimisation for ATM Networks



Background

The ATM network kiosks have long played an important role in the banking industry for cash withdrawals, deposits and other services. Today each ATM is a strategic point of presence for the bank, which carries significant infrastructural costs due to legacy networking issues. Actually BASE24 requires static and reachable IP address for each ATM, demanding for switched networks which are both costly and complex to manage.

Looking at all-round cost reductions for the bank, legacy should be bypassed with suitable solutions. The aim is to deliver a more efficient use of resources, bringing altogether enhanced security and a suitable infrastructure for next generation services, while keeping compatibility.

Challenge

ATMs legacy infrastructure needs a private nation-wide switched network to comply with BASE24 IP requirements. The IP address of each ATM is required to be static, reachable and able to reach the bank server. As a consequence complex switched networks are put in place, often resulting in bandwidth limitation and significant recurrent operational costs. In a time where security has a premier attention, such infrastructure limits the possibility to effectively implement security. Actually, due to limited bandwidth, standard security solutions as TLS/SSL are not efficient or inapplicable because of the considerable overhead.



Industry

Banking
ATM Network



Challenge

- Increase ATM network ROI
- Deliver cost saving while supporting legacy requirements mandated by BASE24
- Enhance security, performance and flexibility of the ATM network



Goals

- Reduce ATM infrastructural costs
- Simplify ATM network configuration and management
- Free ATMs from BASE24 static and reachable IP requirement
- Create a zero overhead secure link

Solution

SElink™ CP Proxy and Gateway system is a service oriented secure virtual routing infrastructure, able to replicate ATM clients and servers behaviours in a seamless way.

Solution

SElink™ TCP Proxy and Gateway system is a service-oriented, secure, virtual routing infrastructure able to replicate clients and server behaviours in a seamless way, as in a private LAN. When an ATM is connected to the bank server through SElink™, it is virtually relocated in the same bank server LAN. The SElink™ Gateway performs ATM machines "virtualisation", showing to the server the original MAC address and a unique, registered, static IP address for each ATM.

The advantages are overwhelming. ATM machines can be installed anywhere, without any limitation in terms of IP and networking. Dynamic IP addresses can be used, allowing to select cheap and largely available connectivity solutions. While preserving BASE24 IP requirements, dedicated switched networks are not needed, with the obvious savings generated by SElink™ disruptive infrastructural approach.

Band availability is not a limit anymore to implement security. Compared to TLS/SSL, SElink™ delivers a light, zero-overhead effective security technology, resulting from over 10 years of military projects. Easy to be integrated in any environment, over any protocol, portable, multi-device and multi-paradigm, with the benefit of crypto-agility, SElink™ security techniques, are resilient and resistant to quantum computing attacks.

Benefits

1. **Cost reduction** avoid complex, expensive and slow private switch networks
2. **Free from static IP**, but still compliant with BASE24 IP requirements for ATM networks
3. **Efficiency and ease of management** ATMs can be installed in temporary locations without the need to reconfigure
4. **Zero-Overhead** crypto agile secure links for ATM to Bank Server using military-grade technology

