Banks Choose Strikesorb® for Automated Teller Machine (ATM) Surge Protection

As banking systems become increasingly complex, protection of sensitive data and equipment on the network plays a critical role.

Banks see the availability of all ATMs on the network as a Key Performance Indicator (KPI) to the health of their overall business.

- Protecting Automatic Teller Machines (ATM) insures the hardware investment by securing a longer ATM life cycle and maintaining the profitability of the ATM network.
- It is a fact that ATM hardware failures decrease availability. Availability highly impacts the ATM network profitability since up-time results in more revenue from transaction fees.
- ATM network down-time also has a negative impact on customer experience.
- The added security measures required during ATM repair and replacement increase operational costs.
- An industry-wide issue is the lack of stable power, especially in developing markets or rural and remote areas.
- Banks often misinterpret electrical surges as general “power-related issues.”
- A recent two year trial conducted by the National Bank of Greece and Raycap tracked NCR Corporation’s ATM products at 64 of the highest-failure ATM sites in the network.

“One of the most important issues facing retail banking institutions today is the reliability and availability of their critical systems. ATMs have proven to be extremely vulnerable to the effects of transient overvoltages caused by unstable power grids and lightning strikes.”
Background

- The operational cost of an ATM network, especially for off-site locations, requires a significant investment for most financial institutions and independent ATM deployers. In order for this investment to be profitable financial institutions are also investing in solutions that can result in higher ATM network availability.

- Banks are installing an increasing number of new ATMs in developing markets, where there is greater likelihood of inconsistent grid-side power problems.

- IP infrastructure is rapidly changing ATM technology, forcing banks to refresh ATM hardware and software. The average lifespan of an ATM is between 7 to 12 years.

- NCR is the manufacturer with the largest share of the world market, currently at 49% in Central and Eastern Europe, 44% in Western Europe, and 48% in the Middle East and Africa. *(Source: RBR Report).*

- NCR also offers hardware and software maintenance services via contractual agreements. Hardware failures due to power problems are not included in maintenance contracts, and are addressed on a per call basis resulting in additional cost for financial institutions. Depending on the installation site, these costs can be significant unless sufficient protection measures are taken. NCR recommends a series of solutions for ATM site protection against power failures. Part of NCR’s solution portfolio is the ATM surge protection solution developed and certified for NCR ATMs in cooperation with Raycap.

<table>
<thead>
<tr>
<th>METRIC</th>
<th>VALUE</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of ATMs</td>
<td>64</td>
<td>Selected ATMs for the trial purposes with frequent power problems</td>
</tr>
<tr>
<td>Number of surge incidents before</td>
<td>106</td>
<td>Sum of power incidents for the selected ATMs before the installation of Raycap ATM surge protection solution</td>
</tr>
<tr>
<td>Number of surge incidents after</td>
<td>0</td>
<td>Sum of power incidents for the selected ATMs after the installation of Raycap ATM surge protection solution by measuring the same time period.</td>
</tr>
<tr>
<td>Average prevented failures in 1 year per ATM</td>
<td>2,51</td>
<td></td>
</tr>
<tr>
<td>ATM availability</td>
<td>&gt;1%</td>
<td>Average increase of ATM availability per year for the trial base.</td>
</tr>
<tr>
<td>Break even period</td>
<td>1.8 months</td>
<td></td>
</tr>
</tbody>
</table>
While certifying the ATM surge protection solution we conducted a proof of concept trial in cooperation with the National Bank of Greece (NBG). We identified the ATMs with the most reported failures caused by “electrical” causes. The two year study was initiated in order to better understand what was causing the different “electrical” failures that were continuing to disrupt the network, and the positive impact that ATM surge protection could provide to this group of ATMs in terms of both availability and operational cost reduction. The basic metrics and results are depicted in the table on the opposite page.

Research Approach & Analysis

- Data was retrieved from both the NCR ATM maintenance dashboard and National Bank of Greece’s ATM network monitoring system. It concludes that the selected ATM group prior to implementing the ATM surge protection solution had frequent failures from power related incidents. After the solution implementation, the failures due to poor electrical power quality were minimal.
- For the trial we selected 64 ATMs with the highest incidence of power related problems. Statistical results were collected over a two year period.
- We designed tailor-made products which applied the proper power protection combination for ATM operation. Our solution facilitated easy installation while protecting both the AC power and ethernet (signal) ports.
- Raycap was established as a global supplier to NCR Corporation in 2013.
- The NCR/Raycap solutions have now also been adopted at other banks worldwide, proving similar results.

Measurable Results

- Using NBG KPI values (based on increased uptime) and the savings calculation, we are able to show significant decrease in operational expenses and increase in ATM availability savings for banks.
- Power related incident data were compared for all 64 ATMs. After the deployment of our surge protection solution, and having used the same metrics and time period, power-related failures were completely eliminated, from 106 incidents down to zero.
- The outcome of the case study showed the payback period of the Raycap/NCR ATM protection solution was less than 2 months.
Raycap Worldwide Locations

Raycap GmbH
Parkring 11
85748 Garching Munich
Germany

Raycap S.A.
Telou & Petroutsou 14
15124 Maroussi Athens
Greece

Raycap S.A. Manufacturing
Industrial Area of Drama
66100 Drama
Greece

Raycap Inc.
806 South Clearwater Loop
Post Falls, ID 83854
United States of America

Raycap Corporation SRL
Soseaui de Centura 27-28
077040 Chiajna Ilfov
Romania

Raycap Cyprus Ltd.
46 Lefkosias Street
Industrial Area of Dali
2540 Nicosia
Cyprus

Iskra Zaščite d.o.o.
Stegne 23 A
1000 Ljubljana
Slovenia

Raycap (Suzhou) Co. Ltd.
Block B, Phase II
of New Sea Union
No. 58 Heshun Road
SIP, Suzhou 215122
Jiangsu Province
China