

Implementing Acquirer Transactional Risk Assessment with 3-D Secure Arcot Europe – Opinion Paper

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Executive Summary

The focus of this document is to explore the use of acquirer transactional risk assessment (TRA 05) in Europe for resolving the problem of false declines. Where merchants choose to use 3-D Secure (3DS) for only high-risk transactions, issuers often struggle to accurately determine which transactions are genuine versus fraud. As a result, issuers will often disproportionately decline genuine merchant transactions. These declines occur in authorization primarily due to the limited amount of data available.

This document outlines the case for leveraging the 3DS protocol and specifically the acquirer TRA 05 process to communicate merchant transaction data to issuers in real time. This provides issuers with a clearer view of the transactional risk by leveraging merchant intelligence. This allows issuers to allow more genuine transactions. The net result is less friction, less fraud, and higher approval rates for merchants.

About Arcot

Arcot, Payment Security Division of Broadcom is the recognized global leader in 3DS digital payment solutions. In addition to merchant offerings, Arcot provides 3DS services to issuing banks with a focus on Europe, Australia, and North America.

Current Merchant Scenario

Arcot's understanding is that today, many merchants still use 3DS selectively, that is, only for higher-risk transactions or for transactions that require 3DS authentication for compliance, European revised Payment Services Directive (PSD2) or Financial Conduct Authority (FCAS) UK. In these scenarios the majority of merchant transactions are sent straight to authorization and therefore bypass 3DS. This causes two issues:

1. With only a subset of transactions sent to 3DS, issuers are unable to accurately assess risk at the ACS—leading to higher declines and challenge.
2. Transactions are disproportionately declined in authorization—leading to overall false declines.

Arcot's view is that 3DS, when used effectively, will reduce friction and increase overall approval rates. In this scenario, 3DS is used as a means of communicating additional data with issuers rather than primarily a means of challenging the cardholder. This exchange of data enables issuers to identify and manage fraudulent transactions more effectively. More genuine merchant transactions are processed at the ACS and fewer genuine transactions are declined in authorization.

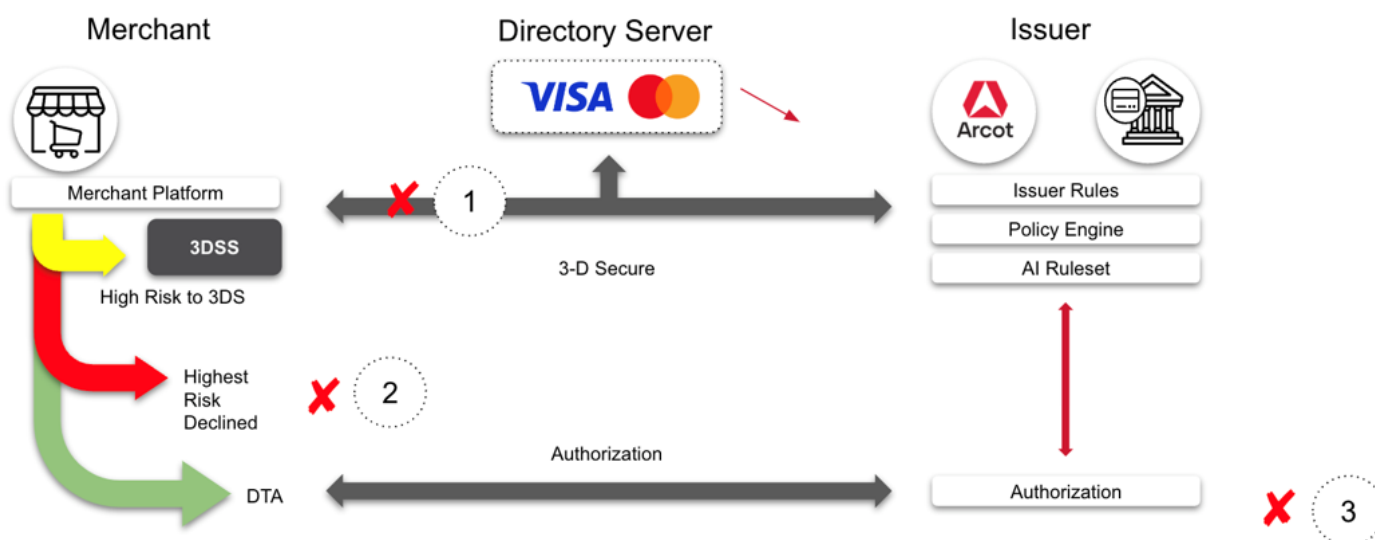
Projected Merchant Benefits of the TRA 05 Strategy

- Reduced challenge rates
- Reduced fraud
- Higher authentication success rates
- Higher authorization rates

Specific metrics and ROI are to be determined during any pilot phase (demonstrated through data).

Transaction Flows: Current

Figure 1: Arcot View of Merchant 3DS Transaction Flow Today



The previous figure outlines Arcot's understanding of the current merchant 3DS environment where 3DS is used selectively for higher-risk transactions.

Process Flow

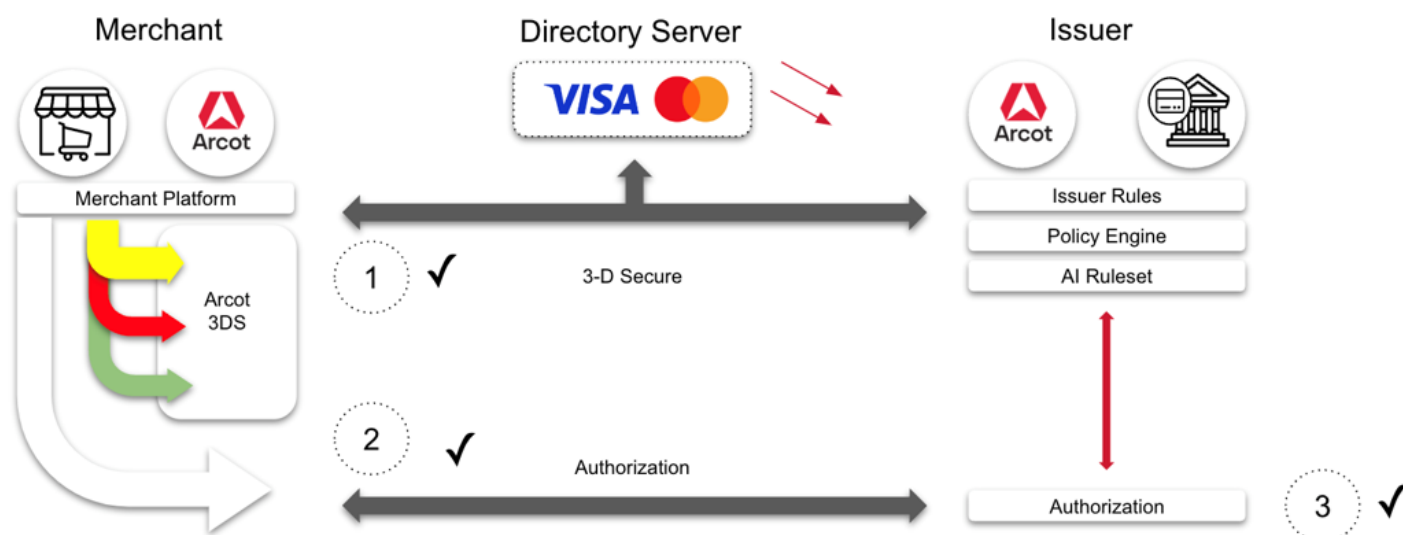
1. By default, 3DS is not utilized. 3DS is not used as a standard communication link between a merchant and an issuer (including Arcot or other ACS providers).
2. A merchant leverages its internal risk platform to derive transaction risk and route accordingly. The highest-risk transactions are declined outright (red), and lowest-risk transactions are sent directly to authorization (green) using an appropriate exemption (for example, Low Value Transaction). Higher-risk transactions (yellow) have an uncertain risk profile and are therefore sent through 3DS for issuer authentication.
3. Merchant transactions are processed in the issuer authorization platform.

Table 1: Pros and Cons of the Current Setup

Pros	Cons
Low latency: Fewer components (need to resilience SLA)	Limited data sharing leads to <i>false positive declines</i> and merchant customer impact.
Cost: For example, 3DSS fees	High-risk transactions are <i>disproportionately challenged</i> . That is, additional friction and less data sharing may also lead to <i>higher fraud rates and chargebacks</i> .

Transaction Flows: Arcot Recommended/Proposed for Higher Approval Rates

Figure 2: Arcot Recommendations/Proposed Scope of Pilot to Increase Approval Rates



The previous figure outlines Arcot's view of an optimized merchant 3DS environment leveraging Arcot's 3DS server (as used by the merchant) together with collaboration with the Arcot issuer base to drive performance.

Process Flow

- 3DS is now leveraged as a means of communicating with issuers. For example, during a fraud attack, this additional data will *inform* the issuer that this transaction is believed to be genuine. Arcot will work with its issuer base to optimize these transactions for a specific merchant, that is, they will leverage all data elements in their rules including the Arcot AI ruleset. In addition, by seeing a greater share of merchant transactions (not just high risk), issuers are more informed and can handle incoming requests better. This leads to fewer challenges and fewer declines in authentication. Arcot will send additional issuer data to merchants (reason codes, score, and so on) either via message extension or API.
- With the additional issuer information from Arcot, the merchant leverages its internal risk platform in a second phase, to determine whether to stop the transaction or continue to authorization. With this approach, merchants and issuers are more informed, fraud is filtered out, and issuers allow more transactions.
- Merchant transactions are now sent and processed in the issuer authorization platform. The additional data leads to higher approval rates and fewer false positive declines.

Table 2: Pros and Cons of the Recommended/Proposed Setup

Pros	Cons
Higher approval rates for merchant transactions.	Potential latency and additional components. Solution: Arcot proposes to leverage Arcot 3DSS for routing (99.99% SLA).
Reduced friction as issuers use data for more risk-based authentications.	Cost: For example, 3DSS fees Solution: Arcot proposes to use the current 3DSS capacity (no additional fees).
Issuer data is returned to the merchant through message extension or API—enhance merchant risk systems through score, reason codes, and device info.	—

Arcot Issuer Base in Europe

For the European market/pilot, Arcot has an extensive issuer base in Europe and UK&I. Arcot leverages its Customer Success Team (CSM) to work with issuers to optimize their rules, score, and transaction outcomes. Arcot CSMs would be part of this pilot. Arcot will work with merchants and its issuers to drive the best performance. Data, reports, and scorecards will be provided through regular meetings as part of an agreed cadence.

Arcot Issuer Base TRA 05 Performance

Arcot has worked with its issuer base to deliver 99%+ approval rates for TRA 05. Additional information/breakdown is available on request and as part of a pilot phase.

Non-Arcot Issuers in the UK/PSD2 Region

For non Arcot issuers, when the merchant is routing the 3DS transaction to a third-party ACS, Arcot can also provide an Arcot perspective for these transactions. In this scenario, the merchant 3DS server (3DSS) as provided by Arcot would route the transaction to the ACS and also to the Arcot platform where the transaction would be processed and scored in the usual way. This information is then returned to the Arcot 3DSS and in turn to the merchant platform. This approach enables merchants to leverage Arcot for 3DSS intelligence regardless of ACS. In turn, this data enables the merchant and Arcot to work together and create a consistent, standards-based, view of all 3DS transactions.

Summary and Next Steps

1. Arcot is committed to support merchants, driving higher approval rates, and reducing friction and fraud while also remaining compliant. Arcot will work to provide the best merchant experience possible; using all of the tools available, such as exemptions, issuer base, risk platforms, and so on.
2. Arcot will share additional information with the merchant wherever possible. This can be through the 3DS protocol (ARES), message extension, or API.
3. Arcot will adapt its 3DSS server to support these initiatives, so Arcot will seek to leverage its own development team wherever possible to drive outcomes.
4. For any 05 (and U.S. 06) pilot, Arcot proposes a project launch to engage the teams, followed by a set regular cadence and regular review of metrics to quantify and report on the benefits of leveraging 3DS for higher approval rates.
5. Arcot executive sponsorship in place (Matt Cooke, Arcot GM).

Thank you for your continued partnership. For any questions related to this document, 3DS, or the Arcot engagement, please contact James Jenkins, Head of Customer Development at james.jenkins@broadcom.com.

You can find additional information including technical documentation at www.arcot.com.

Appendix A: Arcot SLA

Figure 3: Arcot Uptime SLA

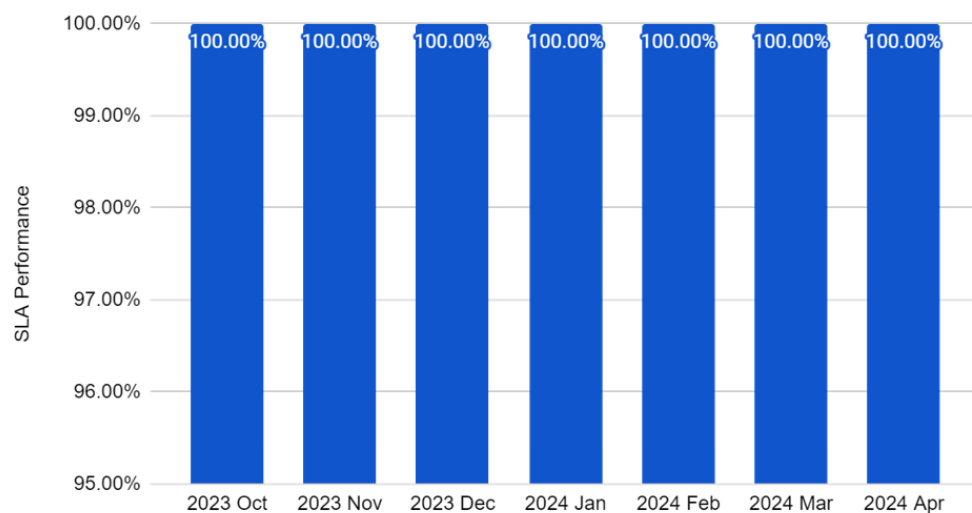


Figure 4: Arcot Transaction Response Time SLA

