3-D Secure Best Practices

7 tips for e-commerce merchants

As part of the second European Payment Services Directive PSD2, the card organisations require all online merchants in the EU and Switzerland to comply with the 3-D Secure (3DS) security standard for payment processing in e-commerce. Follow our 7 tips & tricks to prevent fraud, increase conversation rates and reduce costs.

#1 Request exemptions through 3DS Server to skip extra security steps

How it works	Sometimes, you can skip the extra security check when customers make a purchase. This action is called an exemption. You request these exemptions through your 3-D Secure Server, which helps determine which transactions are secure enough to skip additional security steps.
Real-life example	Imagine a customer places an online lunch order. Instead of asking them to enter a special code or password, your system can recognise this as a low-risk purchase and let it go through without further hassle.
Benefits	**Higher sales:** With less friction, more people are willing to complete their purchases. **Cost savings:** Fewer security checks can reduce transaction costs. **Faster checkouts:** Customers complete their purchases faster, providing a smooth customer experience and improving business performance.
Availability	Mastercard and Visa

#2 Use “Information Only” requests for Mastercard Insights

How it works	Send a 3DS request to Mastercard with all the usual payment details, but instead for asking for full authentication, ask for information only. Mastercard then will provide a risk assessment that helps the bank decide if the transaction is safe without extra costs.
Real-life example	Imagine a customer is buying a book from your online store. Instead of going through a full security check, you ask Mastercard for a risk score based on the transaction details. Mastercard sends back a score, and the bank uses it to approve or decline the payment.
Benefits	**Informed decisions:** the bank receives helpful information to make better decisions about approving transactions. **Flexibility:** Use this approach for transactions that don’t require strict security checks. **Lower costs:** Avoid extra fees by skipping the full security check.
Availability	Mastercard

#3 Use 3DS for Merchant Initiated Transactions (MITs)

How it works	When a customer makes an initial purchase, save the authentication details like amount, timestamp, and transaction ID. For future payments, send these details to your 3DS Server. If the payment is approved, you get a special code to include in the payment request.
Real-life example	Imagine a customer subscribes to a monthly service from your site. For the first payment, you save the security details. For the following monthly payments, you use these saved details to make sure the payments are secure and to shift liability to the bank.
Benefits	**Extra protection:** You get liability protection for future payments. **Cost savings:** Avoid extra fees by using the stored security details. **Smooth payments:** Ensure smooth processing of future payments without having to re-authenticate the customer.
Availability	Mastercard

#4 Improve data quality

How it works	EMV 3DS allows you to send lots of detailed information about the customer and the transaction. The more accurate and complete this data is, the better the bank can assess the risk of the transaction.
Real-life example	Imagine a customer is buying a laptop from your online store. By sending detailed information like the customer’s name, address, email, and purchase history, the bank can better assess the risk and likely approve the transaction without asking for extra security checks.
Benefits	**Smooth checkouts:** Customers experience fewer interruptions, making them happier. **Liability protection:** Better data helps shift liability to the bank, protecting you from fraud. **Higher approval rates:** Banks can make better decisions, leading to more approved transactions.
Availability	Mastercard and Visa

#5 Use Out-of-band redirection

How it works	When a 3DS security check is needed, your app can automatically redirect the customer to their bank’s app for authentication. This simplifies the process for the customer.
Real-life example	Imagine a customer is buying shoes from your online store. When they reach the payment step and need to verify their identity, your app automatically opens their bank’s app where they can approve the transaction. After approval, they are brought back to your app to complete the purchase.
Benefits	**Higher success rate:** More customers complete their purchases successfully without errors. **Better customer experience:** The process is smoother and less confusing, especially for those not familiar with online payments. **Fewer failures:** Reduces issues like failed authentication or timeouts, making the checkout process more reliable.
Availability	EMV 3DS 2.2

#6 Use Method URL for data collection

How it works	Prior to the authentication step, the ACS system (the bank’s security system) provides a URL through the 3DS Server that transparently collects additional data from the consumer’s browser. This step helps gather necessary information to assess the transaction risk.
Real-life example	Imagine a customer is buying a new gadget online. Before they need to authenticate a purchase, a hidden step collects data from their browser. This data helps the bank decide the purchase is safe, so the customer doesn’t have to go through any extra steps.
Benefits	**Seamless user experience:** Consumers experience a smooth checkout process without being subject to additional security prompts. **Enhanced risk assessment:** Issuers can perform more accurate risk assessments using the collected data, leading to fewer unnecessary challenges. **Increased conversion rates:** By reducing the number of authentication challenges, more transactions are completed successfully, boosting sales.
Availability	Mastercard and Visa issuers for browser flow 3DS

#7a Use merchant’s own Strong Customer Authentication (SCA) – Mastercard option

How it works	With SCA delegation, if your business has a compliant SCA solution, you can bypass the 3DS process. This means the authentication is handled by you, the merchant, rather than the issuer. However, since the issuer isn’t doing the SCA, there is no liability shift. SCA delegation must be requested for each authorization through the Network Tokens Service and is applicable for known customers, not for guest checkouts.
Real-life example	Imagine a regular customer is purchasing a monthly subscription from your website. Because you have a compliant SCA system, you can handle the authentication yourself, making the process seamless for the customer. You request SCA delegation for this transaction, and the issuer allows it, skipping the 3DS step. The customer completes the purchase quickly without additional security checks.
Benefits	**Smooth checkout:** Customers enjoy a smooth and quick checkout experience without additional authentication steps. **Trusted relationships:** For known customers, the process is faster and more efficient. **Improved customer satisfaction:** A seamless experience process for known customers, providing a faster and more efficient shopping experience.
Availability	Mastercard

#7b Use merchant’s own Strong Customer Authentication (SCA) – Visa option

How Digital Authentication Framework (DAF) works	DAF authenticates a payment credential specifically for a merchant, rather than authenticating the authorization itself. If the merchant has a compliant SCA solution, it can request to use DAF per transaction. This request can be made through the Network Tokens Service or the 3DS server, typically after the initial authentication by the Issuer. DAF can be applied for known customers but not for guests checkouts.
Real-life example	A regular customer makes a purchase from your online store using their saved payment credentials. Your app handles the authentication seamlessly within the merchant environment using DAF, skipping additional 3DS steps and ensuring a quick and secure transaction.
Benefits	**Frictionless checkout experience:** If your app can perform SCA, you can skip 3DS for eligible transactions, providing a smoother checkout process for customers. **Potential liability shift:** Unlike SCA delegation, DAF offers the possibility of liability shift under certain conditions, enhancing financial protection for merchants. **Applicability to MITs:** Starting 2024, DAF will also be available for Merchant Initiated Transactions (MITs), further streamlining secure transactions.
Availability	Visa

Please discuss these options with your PSP partner. For further questions please don’t hesitate to contact our Customer Service by e-mail:
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