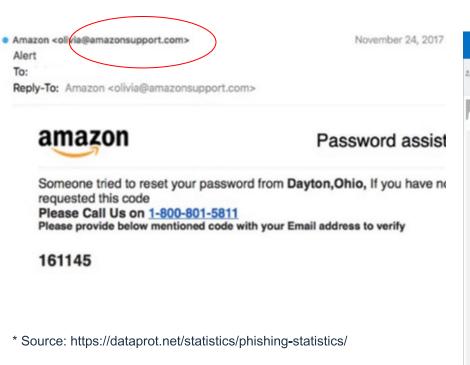


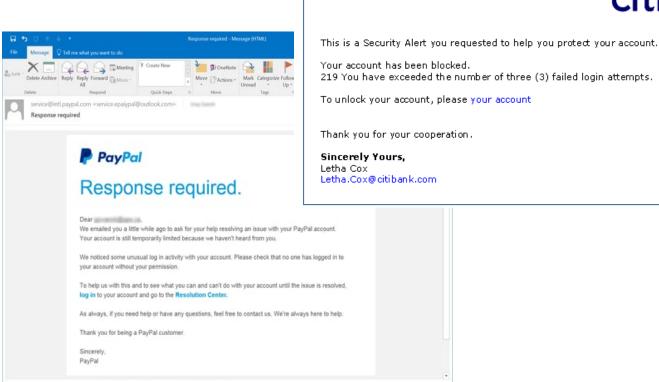
Preventing Phishing and account takeover attacks with FIDO

Alain Martin – Thales December 1, 2022

Phishing attacks

- Are increasingly sophisticated and hard to detect
 - Up to 70% of phishing emails are opened*
 - Of those, 50% of users click on malicious links*





--- Forwarded Message: ------

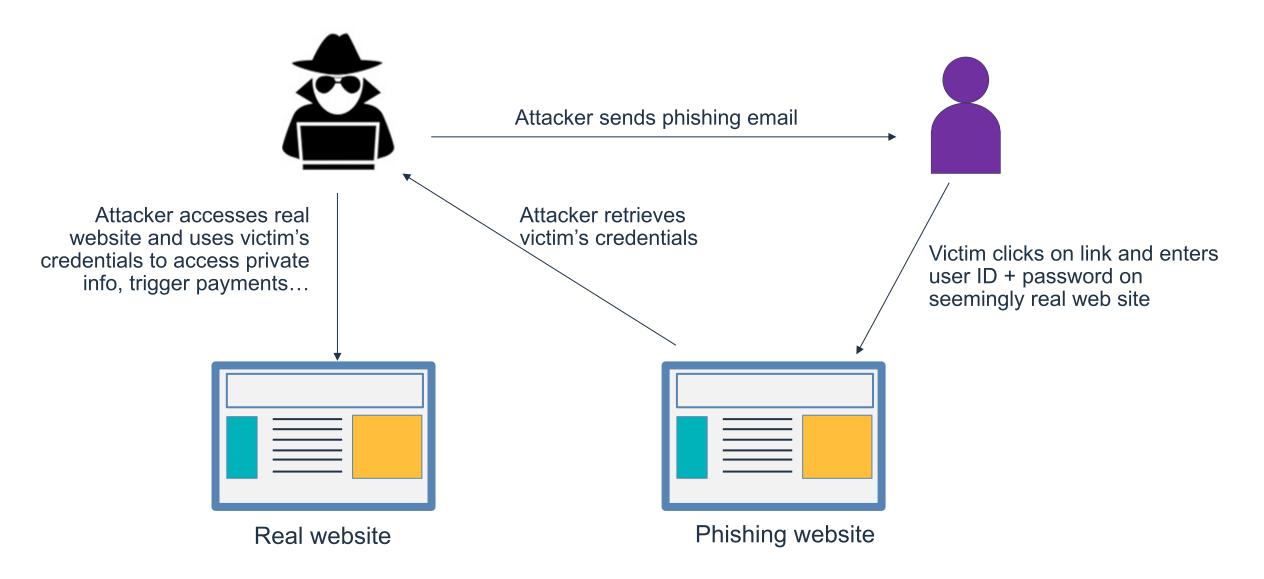
From: "alerts@citib ank.com" <ALERTS@CITIB ANK.COM>

To: recipient@email.com Subject: Security Alert: 06699

Date: Thu, 29 May 2008 12:41:41 +0000

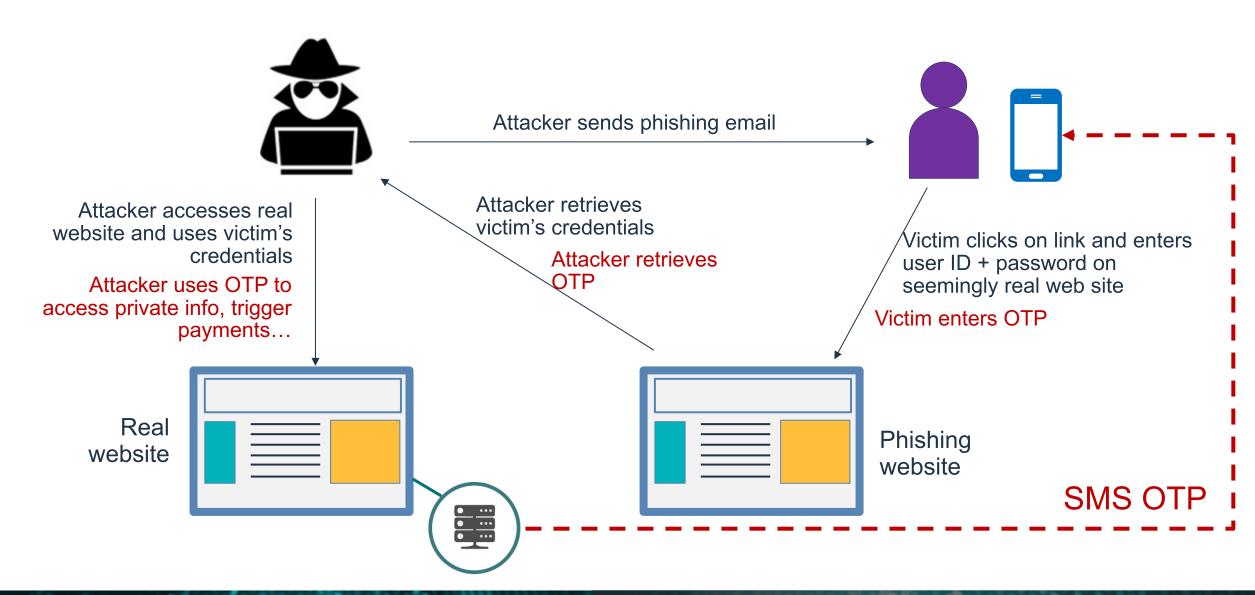


How phishing attacks work

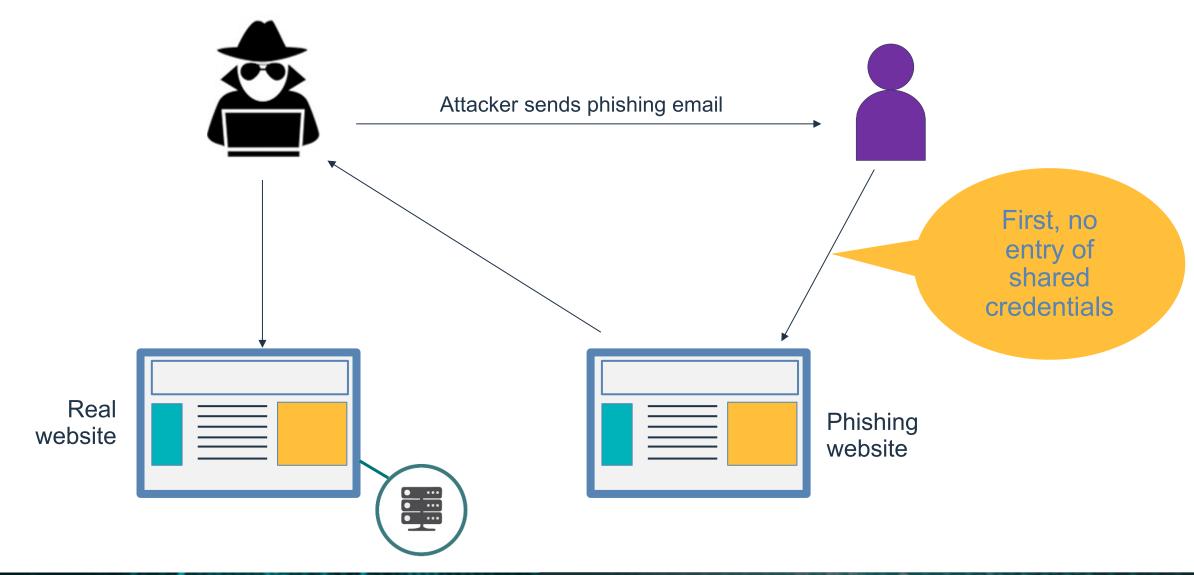


OTP based 2nd factor authentication does not help

How OTP phishing attacks work



What phishing resistance means

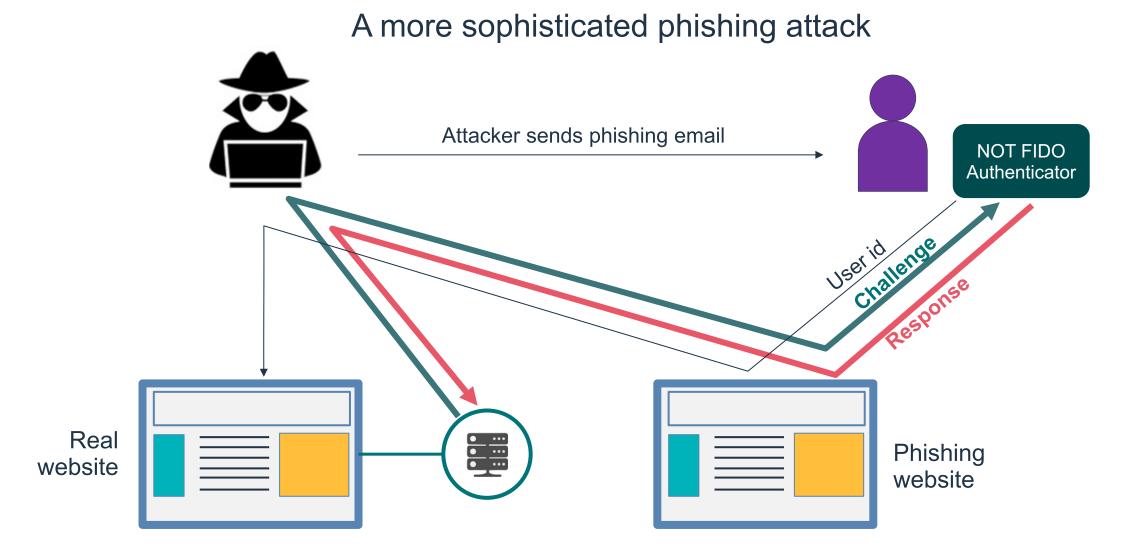


How do you authenticate to the Relying Party without sending a shared credential?

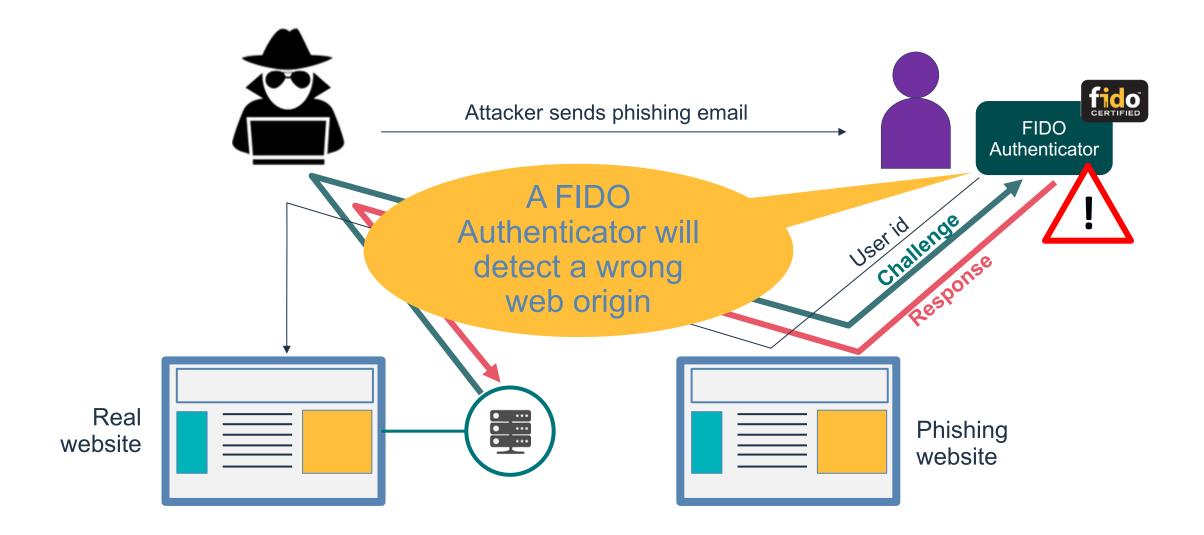
The FIDO answer The response The response is not entered by conveys user User verification proof user! verification is local! **User Environment Relying Party** Challenge FIDO Authenticator PIN or biometrics Signed Response Public key Private key The response The response is conveys possession not replayable proof

Is it enough to prevent phishing attacks and account take over?

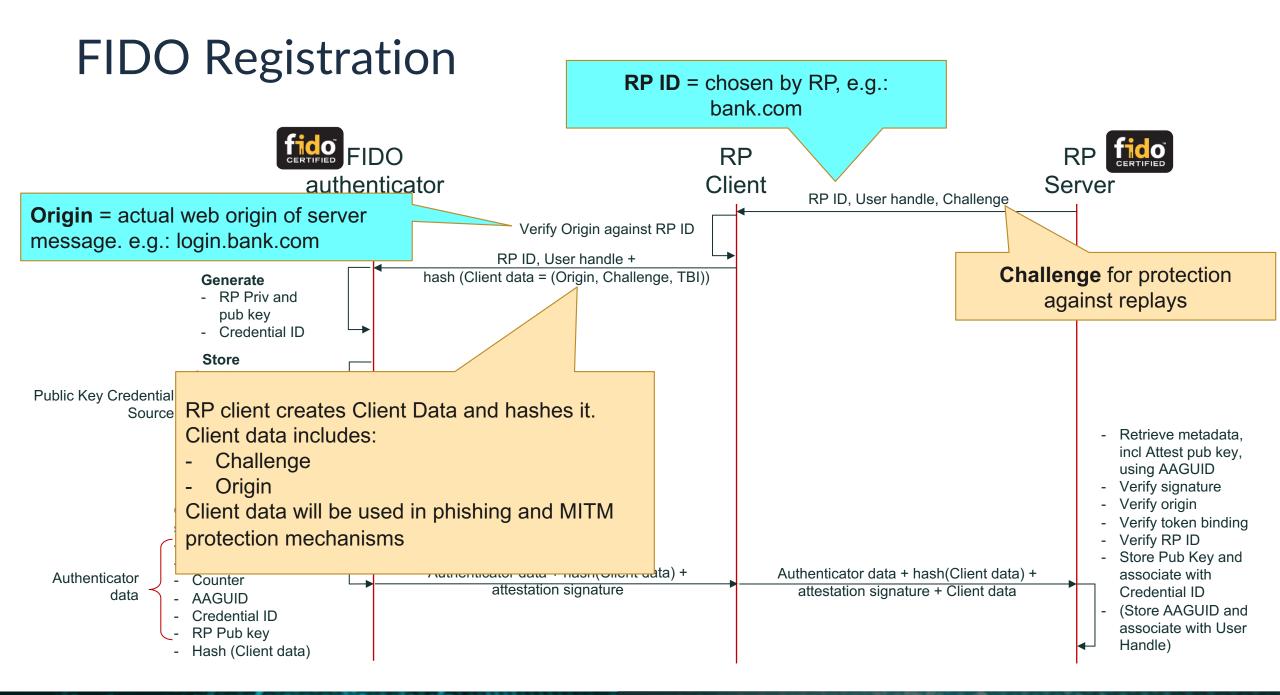
No



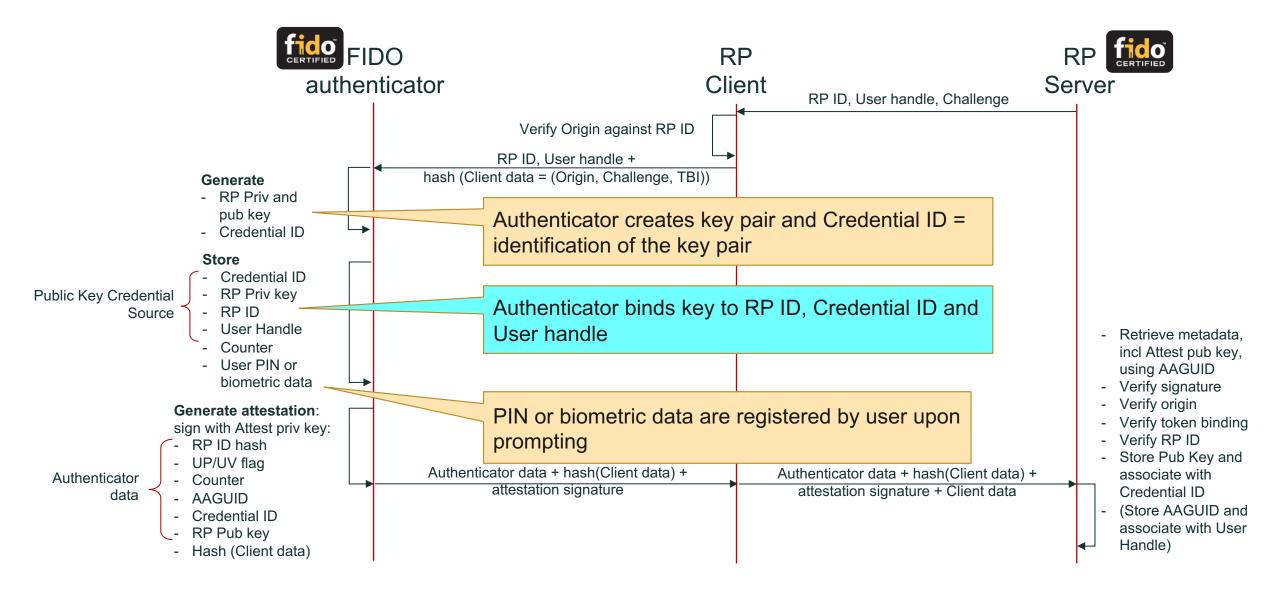
The FIDO solution



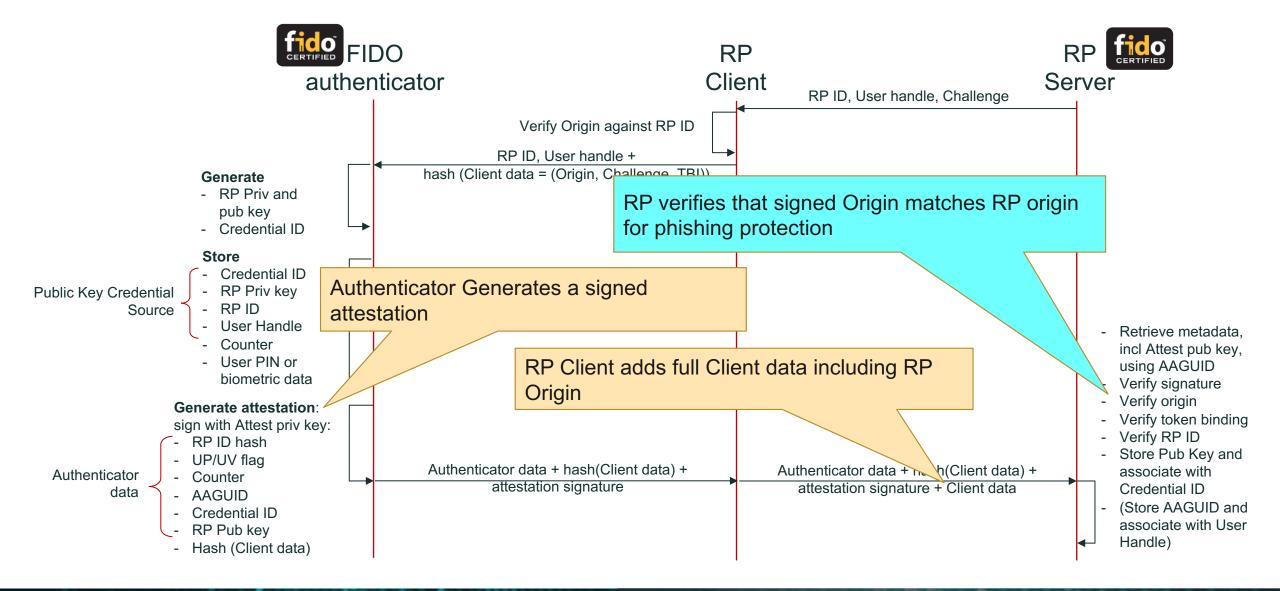
How?



FIDO Registration



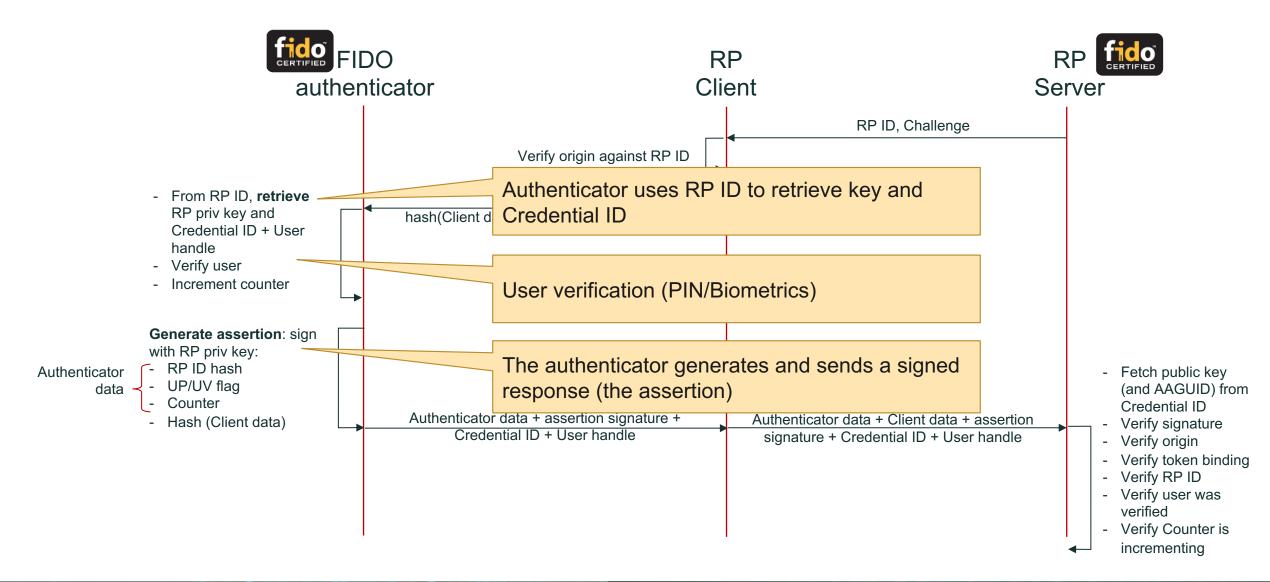
FIDO Registration



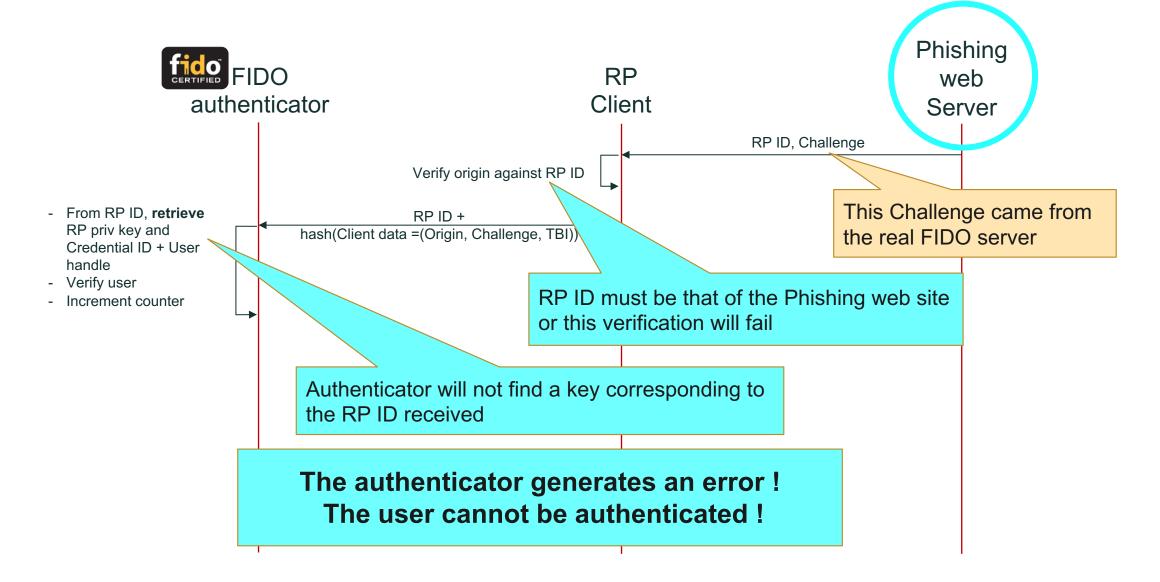
FIDO authentication



FIDO Authentication - Normal sequence diagram



FIDO Authentication - In the case of phishing















Questions?