

Alice	Bob
x_A - private key $y_A = g^{x_A}$ - public key $cert_A$ - certificate for y_A	x_B - private key $y_B = g^{x_B}$ - public key $cert_B$ - certificate for y_B
MAIN PROCEDURE	
choose a at random $h_A := H(a)$ $c_A := g^{h_A}$	choose b at random $h_B := H(b)$ $c_B := g^{h_B}$
$K := c_B^{h_A}$ $K_A := H(K, 1), K_B := H(K, 2)$ $K'_A := H(K, 3), K'_B := H(K, 4)$ $r_A := H(c_B^{x_A}, K'_A)$	$K := c_A^{h_B}$ $K_A := H(K, 1), K_B := H(K, 2)$ $K'_A := H(K, 3), K'_B := H(K, 4)$
	check $cert_A$, proceed with random values if $r_A \neq H(y_A^{h_B}, K'_A)$
check $cert_B$, proceed with random values if $r_B \neq H(y_B^{h_A}, K'_B)$ $K_{session} := H(K, 5)$	$r_B := H(c_A^{x_B}, K'_B)$ $K_{session} := H(K, 5)$