Reveal

An interesting solution to a boring problem

PUBLIC LAW 117–58—NOV. 15, 2021

135 STAT. 1341

(3) Treatment as cash for purposes of section 60501.— Section 6050I(d) of such Code is amended by striking "and" at the end of paragraph (1), by striking the period at the end of paragraph (2) and inserting ", and", and by inserting after paragraph (2) the following new paragraph:

"(3) any digital asset (as defined in section 6045(g)(3)(D)).".

(c) Effective Date.—The amendments made by this section shall apply to returns required to be filed, and statements required to be furnished after December 31, 2023.

to be furnished, after December 31, 2023.

(d) RULE OF CONSTRUCTION.—Nothing in this section or the 26 USC 6045 amendments made by this section shall be construed to create note. any inference, for any period prior to the effective date of such amendments, with respect to—

(1) whether any person is a broker under section 6045(c)(1)of the Internal Revenue Code of 1986, or

(2) whether any digital asset is property which is a specified security under section 6045(g)(3)(B) of such Code.

IRS Form 8300

Requirement for crypto transactions larger than 10K USD from 1 Jan 2024

IRS **8300** (Rev. December 2023)

Report of Cash Payments Over \$10,000 Received in a Trade or Business

Use this form for transactions occurring after December 31, 2023. Do not use prior versions after this date.

OMB No. 1506-0018 Department of the Treasury

Internal	Revenue Service	For Priv	acy Act a	nd Paperwo	ork Reduct	ion Ac	t Notice, s	see the ir	<u>ıstruct</u>	ions.		Enforc	ement N	etwork	
1	Check appropris	ate box(es) if:	а	Amends p	rior report;			b	S	uspici	ous tra	ansaction.			
Part	Identity	of Individual F	rom Who	om the C	ash Was	Rece	eived								
2	If more than one	individual is involve	ed, check h	ere and see	instruction	ns								🔲	
3	Last name				4 First na	ame	ne				6 Tax	payer iden	tification	number	
											1		1 :		
7	Address (number	er, street, and apt. o	r suite no.)					8 Da	te of bi	rth	М	M D	DΥ	Y Y Y	
	·							(se	e instru	ctions)	: 1 :	1 :	1 1	
9	City			10 State	11 ZIP co	ode	12 Cour	ntry (if no	t U.S.)		13 (Occupation, p	rofession	or business	
	,			!				, ,	,			,,,			
14	Identifying	a Describe ID		'					h	Issue	d by				
•	document (ID)	c Number							~		,				
Part		on Whose Beh	alf Thie	Transacti	on Was	Cond	ucted								
15								eoo inetru	otions						
16	If this transaction was conducted on behalf of more than one person, check here and see instructions Individual's last name or organization's name 17 First name 18 M.I.										19 Taxpayer identification number				
10	ilidividuai s iast	marile or organization	ii s name		17 1113	Thairie			10 101.		, la	Apayer idei	lineano	THUITIDE	
00	Daina huainasa	as (DDA) nama (asa	inatruation	· a\							- i	i i	tificatio	i i	
20	Doing business	as (DBA) name (see	instruction	is)							EII	ployer ider	illicatio	n number	
												1 1	<u> </u>		
21	Address (number	er, street, and apt. o	r suite no.)						22 Oc	cupat	ion, pr	rofession, o	or busine	ess	
23	City			24 State	25 ZIP co	ode	26 Cour	ntry (if no	t U.S.)						
27	Alien	a Describe ID							b	Issue	d by				
	identification (ID	c Number													
Part	Ⅲ Descrip	tion of Transac	ction and	d Method	of Payn	nent									
28	Date cash receive	ved 29	Total cas	h received		30 If c	ash was r	eceived i	n	;	31 To	tal price if	different	from	
	M M D D Y Y Y Y				more than one payme				nt,	_	ite	m 29			
			\$.00	che	eck here		!		\$.00	
32	Amount of cash	received (in U.S. do	llar equiva	lent) (must e	qual item 2	29) (see	instructio	ns):							
а	U.S. currency	\$.00	(Amount i	n \$100 bills	or high	ner \$.00)					
b	Foreign currency \$.00 (Country)														
С	Cashier's check(s) \$.00 } Issuer's name(s) and serial number(s) of the monetary instrument(s)														
d	Money order(s) \$.00														
e	Bank draft(s) \$.00														
f	Traveler's check	(s) \$.00												
33	Type of transact		.00	•			34	l Specific	n descr	intion	of pro	nerty or se	rvice sh	own in 33	
а	Personal pro					ic description of property or service shown in 33. erial or registration number, address, docket									
b			·				per etc								
	Real property purchased g Exchange of cash Personal services provided h Escrow or trust funds							Humber, etc.							
C C		•		-			.								
d	Business services provided i Bail received by court clerks Intangible property purchased j Other (specify in item 34)														
e		· · ·	J	Other (spe	ecity in item	1 34)									
Part		ss That Receive								1.	06 F		_1:6: +'		
35	Name of busine	ss that received cas	n							;	36 En	nployer ide	ntificatio	on number	
37	Address (number	er, street, and apt. o	r suite no.)								So	cial securit	y numb	er	
											- }				
38	City			39 State	40 ZIP co	ode	41 Natu	ire of you	r busine	ess					
				-											
42	Under penalties	of perjury, I declare	that to the	best of my	knowledge	the inf	ormation I	l have furi	nished	above	is true	e, correct, a	and con	nplete.	
	,	• • •		,	3							,		-	

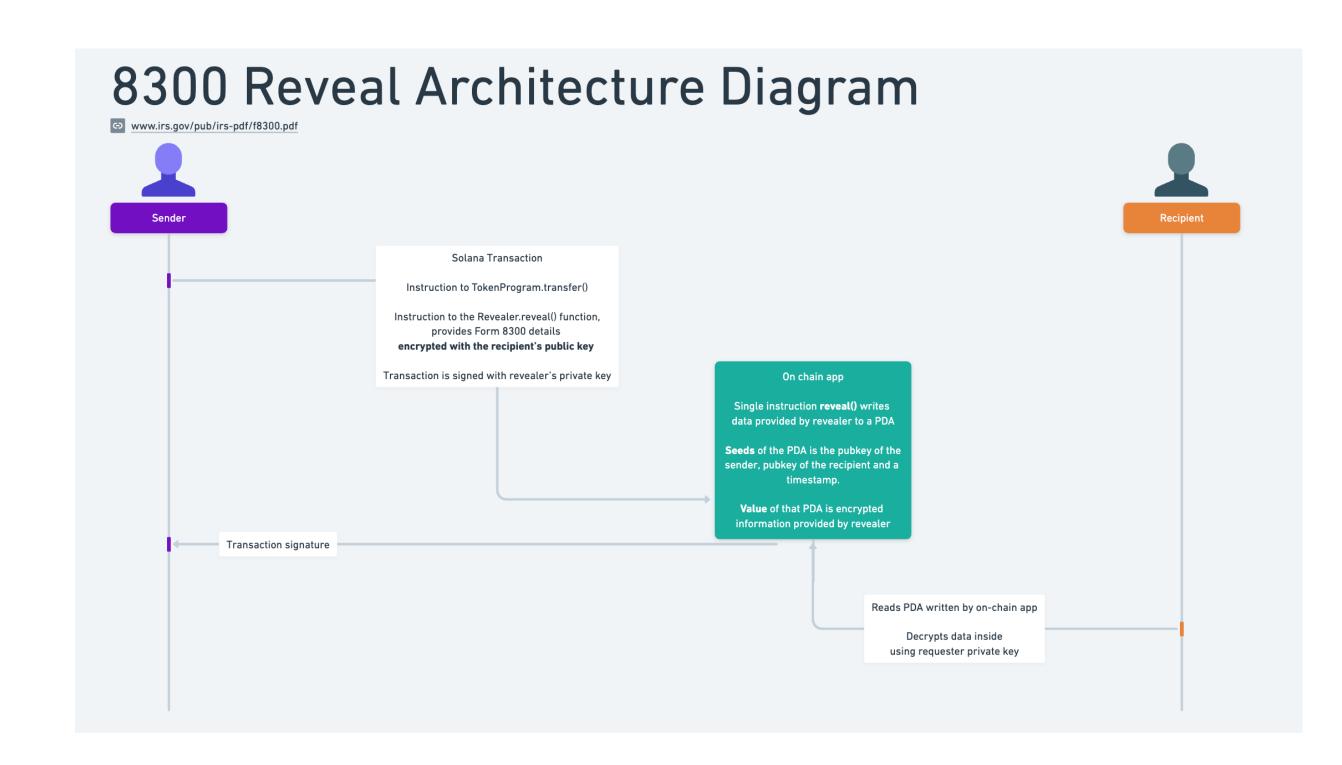
Or maybe not quite yet...

Feb 25: "Cryptocurrency Users Relieved As IRS Delays Form 8300 Reporting"

Reveal stores Form8300 data

Just another instruction to add to your SPL transfers

- A transaction with reveal is just:
 - ComputeBudgetProgram.setComputeUnitLimit()
 - TokenProgram.transfer()
 - RevealProgram.reveal()
- Receiver has data they need for IRS
- Sender keeps their data private

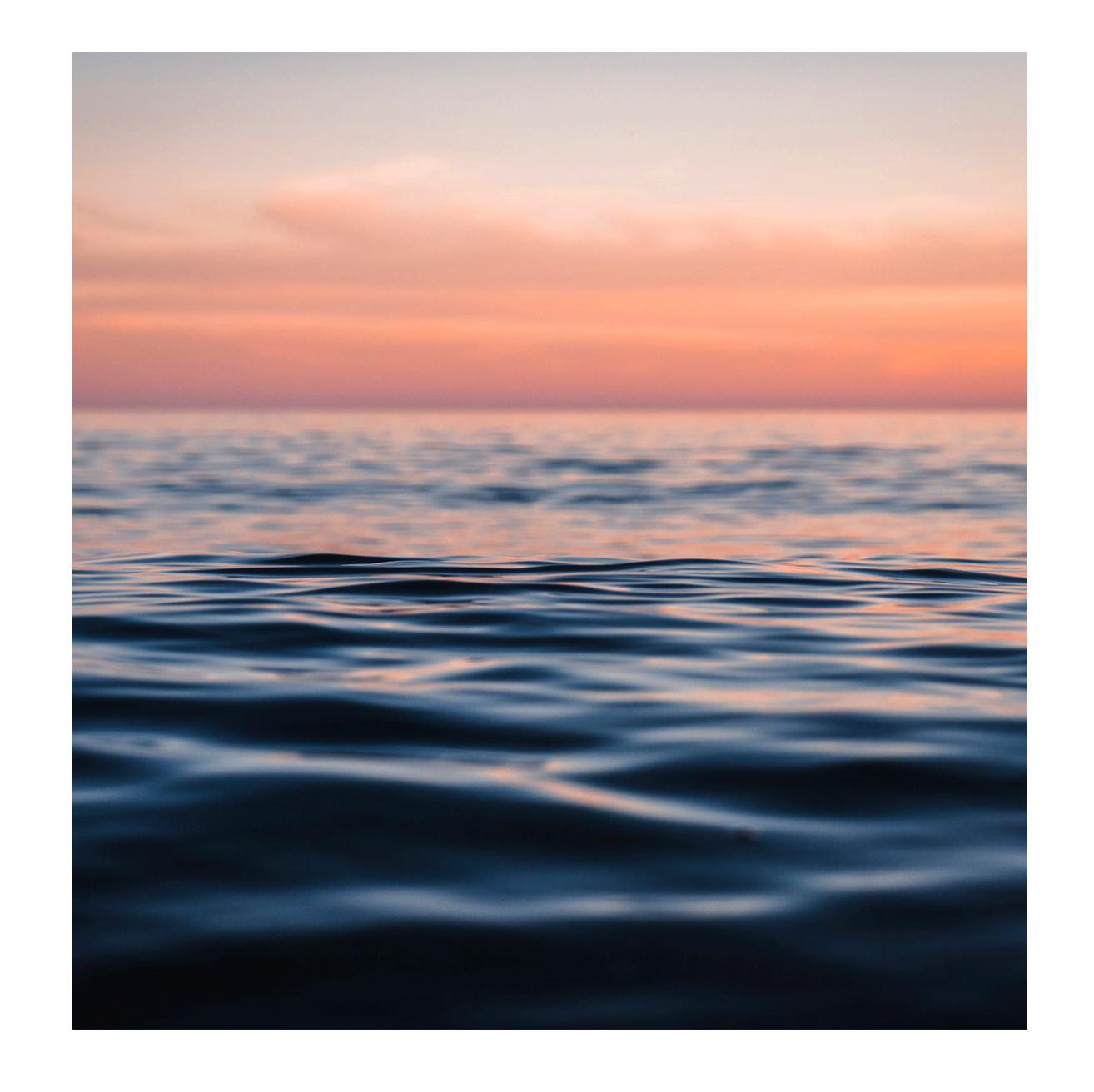


More on reveal()

Just the sender-specific parts of 8300

Just under 1K of data

Format is built / validated entirely client-side & stored in PDA



Tech Stack

InitSpace macro because I hate adding numbers!

'instructions' dir and functional style with Anchor's 'multiple' template.

Transactions composed of both SPL and Anchor instructions, via Anchor's .instruction() converter to convert to web3.js instructions.

web3js 1.x -> webcrypto bridge for client side encryption (still WIP!)

```
#[derive(Accounts)]
#[instruction(id: u64)]
5 implementations
pub struct RevealAccounts<'info> {
   #[account(mut)]
   pub sender: Signer<'info>,
   #[account(
       init,
       payer = sender,
       space = ANCHOR_DISCRIMINATOR_SIZE +
       Revelation::INIT_SPACE,
       seeds=[b"revelation", sender.key().as_ref
        (), id.to_le_bytes().as_ref()],
       bump
   pub revelation: Account<'info, Revelation>,
   pub system_program: Program<'info, System>,
pub fn handler(context: Context<RevealAccounts>,
id: u64, data: [u8; DATA_SIZE]) -> Result<()> {
   msg!("ID is: {}", id);
   msg!("Data is: {:?}", data);
    context.accounts.revelation.set_inner
    (Revelation {
       id,
       data
```

Tech Stack Continued

Tests and Debugging

Tests are using node:test and node:assert, rather than mocha/chai.

Tests put 5800 data in, make sure they can get it back out!

Debug macro was useful for logging structs etc.

Using Solana Explorer pointed at localhost was helpful - run own validator so it stays up after tests, then anchor test —skip-local-validator.

It took me too long to work out that I need to provide the PDAs in the accounts list even when creating the PDA, so Solana can know which transactions overlap!

```
☐ System Program
09 23 3b be a7 f9 4c 73 ba 7a 29 e3 3c 1c cc e0
7b 22 66 69 72 73 74 4e 61 6d 65 22 3a 22 4a 61
6e 65 22 2c 22 6d 69 64 64 6c 65 49 6e 69 74 69
61 6c 22 3a 22 51 22 2c 22 6c 61 73 74 4e 61 6d
65 22 3a 22 53 6d 69 74 68 22 2c 22 74 61 78 50
61 79 65 72 49 64 22 3a 22 31 32 33 34 35 36 37
38 39 22 2c 22 61 64 64 72 65 73 73 4c 69 6e 65
31 22 3a 22 31 32 33 20 4d 61 69 6e 20 53 74 22
2c 22 63 69 74 79 22 3a 22 41 6e 79 74 6f 77 6e
22 2c 22 73 74 61 74 65 22 3a 22 4e 59 22 2c 22
7a 69 70 22 3a 22 31 32 33 34 35 22 2c 22 64 6f
62 22 3a 22 32 30 30 30 30 31 30 31 22 2c 22 6f
63 63 75 70 61 74 69 6f 6e 22 3a 22 73 74 75 64
65 6e 74 22 2c 22 69 64 65 6e 74 69 66 79 69 6e
67 44 6f 63 75 6d 65 6e 74 22 3a 22 70 61 73 73
70 6f 72 74 22 2c 22 69 64 65 6e 74 69 66 79 69
6e 67 44 6f 63 75 6d 65 6e 74 4e 75 6d 62 65 72
22 3a 22 31 32 33 34 35 36 37 38 39 22 2c 22 69
64 65 6e 74 69 66 79 69 6e 67 44 6f 63 75 6d 65
6e 74 49 73 73 75 69 6e 67 43 6f 75 6e 74 72 79
22 3a 22 55 53 41 22 7d 20 20 20 20 20 20 20 20
```

Thanks WBA!

@mikemaccana