

Unknown

**From:** Alan Guggenheim [aguggenheim@cis-tech.com]  
**Sent:** Friday, April 23, 1999 6:42 AM  
**To:** Christophe Nicolas [NAGRA]; Henri Kudelski [NAGRA]; Jean-Daniel Meynet [NAGRA]; Michel Wermelinger [Nagra]  
**Subject:** Chat 184

\*\*\* PGP SIGNATURE VERIFICATION \*\*\*  
\*\*\* Status: Unknown Signature  
\*\*\* Signer: Unknown Key (0x11C0E134)  
\*\*\* Signed: 4/23/1999 6:28:17 AM  
\*\*\* Verified: 6/12/2007 5:10:29 PM  
\*\*\* BEGIN PGP DECRYPTED/VERIFIED MESSAGE \*\*\*

Author Topic: the BAT GUYS have a CARD DUMP..  
Beavis  
Senior Member posted 04-20-99 05:48 PM

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why dont we?? it seems simple that the easiest way for the bat people to get them back up was to do a card dump and get there new key. and when it goes down again they will do the same...  
comments? anyone?.....>

PacMan  
Senior Member posted 04-20-99 09:37 PM

-----  
They could have actually paid money to have the card reverse engineered while we were all playing with our freeware. This happened during changeover on DSS. The east group worked the H card over while the west played with the F card. However they did it, my batt is still running.  
PacMan

Blaster  
Senior Member posted 04-21-99 09:23 AM

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I don't think they do.  
Otherwise they would have true hack not this keybased piece of crap

Beavis  
Senior Member posted 04-21-99 09:46 AM

-----  
Blaster you fool. this is how this system runs. they use a possible 2 keys to decrypt messages - nothing else. dss is different running hashing algorithms. two completely different ecm styles. there was never anything wrong with the original hacks and echostar did exactly as anyone would have expected.  
so shut up you stumbling fool

CASE NO.  
SA CV 03-950 DOC (JTLx)  
ECHOSTAR SATELLITE CORP., et al.

vs.

NDS GROUP PLC, et al.

DEFENDANT'S EXHIBIT 538

HIGHLY CONFIDENTIAL

Case No. SA CV03-950 DOC (JTL)

DATE \_\_\_\_\_ IDEN.

DATE \_\_\_\_\_ EVID.

BY \_\_\_\_\_  
Deputy Clerk

**Unknown**

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Author Topic: the BAT GUYS have a CARD DUMP..  
Dave1  
Senior Member posted 04-20-99 05:49 PM

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pibii1897s0.pdf

pasha  
Senior Member posted 04-21-99 09:58 AM

Beavis,  
Can you tell me this  
can they increase to 4 or 6 or 256 different keys??  
or they just have space for ???  
-Pasha

StuntGuy  
Senior Member posted 04-21-99 10:11 AM

Beavis: You're more full of shit than the Oklahoma City truck bomb.  
The root of what DSS and Echostar do is EXACTLY THE SAME. In both systems, the IRD sends a request to the CAM for information that will be used to decrypt/decode the video. In both systems, the CAM either returns the correct information or not, depending on whether or not it thinks the channel should be viewable. The only difference is in the algorithm: We know what it is for E\*, but not so much for the DSS P2 cards (although, in the P1 era, we DID know the DSS algorithm: it's what made batt cards possible). The specifics are irrelevant...whether it's an encrypted key that the CAM decrypts (as with E\*) or a value that gets passed through a hash (as with DSS), the result is the same. What Blaster is saying is that these wedge-based hacks are second-best and the better hack is one that modifies the real CAM to always allow video, without regard to the validity of the subscription. If you're going to mislead people, at least make your stories plausible, and if you're going to flame people, at least take the time to understand their message.

-s

[This message has been edited by StuntGuy (edited 04-21-99).]

Beavis  
Senior Member posted 04-21-99 10:48 AM

axa,  
shutup and listen fool. dss uses a 1 way hashing algorithm to place the bytes of the stream through to generate a computed control word matching the encrypting computers results that were used by the mpeg encoder to encrypt video and/or audio if chosen. they have initialization keys for their algorithms but it is not how they perform ecma on you. they change how many times or values put through the algorithm you foolish jerk. echostar has 2 jkeys to choose from to simply decrypt the 2 control words given in a block. echostar is the d2mac of the usa. das is the sky of the uk. shows you how little you think you know loser! go sit in a chair

[stuntguy is axa in hiding. informant to dtv]

[This message has been edited by Beavis (edited 04-21-99).]

skyvisitor  
Senior Member posted 04-21-99 10:57 AM

It should have read "The Batt Guys Take A Dump".

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HIGHLY CONFIDENTIAL

Case No. SA CV03-950 DOC (JTL)

NVNC022313

StuartGuy  
Senior Member posted 04-21-99 11:06 AM

Beavis: Okay, moron, let's look at how it works, step-by-step {because that seems to be the only way you'll understand it}:

Generic:

IRD provides CAM with info so CAM can compute decrypt/decode info

CAM decides whether to provide info, and if happy, performs necessary steps to compute decode info

IRD requests decrypt/decode info from CAM

CAM returns info or "no go" to IRD

DTV:

IRD sends CAM seed key info, which includes tier info and hash input value using 48 42 packet

CAM examines tier info. If tier matches a subbed channel or PPV entry, CAM feeds hash input value into 1-way hash function

IRD requests seed key from CAM using 48 54 packet

CAM returns result of hash function of "no go" to IRD

E\*:

IRD sends CAM encrypted control words and tier info using 03 command

CAM decrypts info in 03 command using one of two keys, decides if IRD is authorized to view channel specified in tier info. If so, CAM re-encrypts control words using IRD box key

IRD sends CAM control word request using 13 command

CAM returns re-encrypted control words or "no go" to IRD

Does that make it clear enough for you? I'm not saying that E\* and DSS attack hacks the same way, I'm saying that at their root, both cards work the same way to provide video decoding info to the IRD. The type of attack E\* or DSS will levy against a hack doesn't matter, and the fact still stands that a properly implemented CAM-based hack is ALWAYS going to be better than a wedge-based hack. Like I said, READ THE MESSAGES before you respond.

-s

Beavis  
Senior Member posted 04-21-99 11:18 AM

Blaster you fool. this is how this system runs. they use a possible 2 keys to decrypt messages - nothing else. das is different running hashing algorithms. two completely different ecm styles. there was never anything wrong with the original hacks and echostar did exactly as anyone would have expected.  
so shut up you stumbling fool

NOTHING WROTE ABOVE IS WRONG ASEHOLE,

StuntGuy  
Senior Member posted 04-21-99 11:24 AM

You're right. It's not. What's wrong is the fact you posted the message in the first place. Blaster wasn't saying ANYTHING about how the E\* systems work. By "key-based piece of crap", he means, "wedges that will go down as soon as E\* changes the key again". Your attack was not called for and counterproductive. I don't know who the hell pissed in your cheerios to make you so bitter, but I'd suggest that you go take a nice, long vacation and learn to relax a little; I've not seen you post a single constructive response here. The best-case for your messages are the ones that you represent as containing portions of the new key (which may or may not be a falsehood), and you even manage to call everyone fools and losers in those.

--3

[This message has been edited by StuntGuy {edited 04-21-99}.]

Dave1  
Senior Member posted 04-21-99 11:38 AM

Oh Lord, Look What I started..... sorry

Beavis  
Senior Member posted 04-21-99 11:38 AM

funny, nothing needs to be said.. i found something in something whereas i can recover the key. i wont say how i found it and it may not have come out of a real cam. I will let you continue to run the show since you already know you are a ginea pig in this scene. its not diss where the once you have a working devices code, you are good forever. we missing other vital pieces of code for sure. you dont have nor echoman aka satcom. ahahaha you know it too, thats why i laughing the hardest! you know you dont know the key. if you do, it took you long enough!!

Com1  
Senior Member posted 04-21-99 02:42 PM

You've heard of VapoWare... Now Beavis is resorting to Vapor Bullsh\*t...!! Found something in something and not going to tell you.... What a laugh... Hey people, I know this this Las Alamos scientist who only does highly classified work for the Federal Gov't. and in his spare time decyphers keys for Dish... He gave me the key, but I'm not going to tell you who, what, where or when about it. Take a hike Butt\_Crack\_bullish\*tter!

digdug  
Senior Member posted 04-21-99 04:30 PM

I'm not in that much of a hurry for a hack fix, reading these posts each day is pretty entertaining in itself. I might even miss them when the fix is in. At least things don't get stagnant with Beavis Butt crack around!

Blaster  
Senior Member posted 04-21-99 05:00 PM

Beavis - Sorry I called you hack a piece of crap (I sure couldn't do it) but, how about it. Dump the card ?? Are you that good ?? You know its been done. Are you up to that task?

heatman  
Senior Member posted 04-22-99 05:52 PM

alls quite now i know many have tried to dump the card but its damn near impossible.it would be the only way to keep up with key changes.it would however keep johny sat down.some one needs to go work for e\* for 1 week and bring out the secret!!!

Dave1  
Senior Member posted 04-22-99 07:21 PM

what about the original doc. from the SCP, If I am not mistaken there was suppose to be some info {not all} about some command that would lead to a card dump. I searched the posts but found nothing. Stuntguy / Beavis am I correct?

Cooter  
Senior Member posted 04-22-99 09:17 PM

A blast from the past.  
p dUMP fROM rUNNING CaM REV 3.13.  
p PUBLIC KEYS INSIDE  
p eNJOY!

p (c)1998 swiss chEese pRODUCTIoNs

E009: 11,22,33,44,55,66,77,88,FF,FF,FF,FF,FF,FF,FF ; .....  
E010: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E020: 00,11,22,33,44,55,66,77,88,99,AA,BB,CC,DD,EE,FF ; .....  
E030: E4,00,52,65,76,33,31,33,00,11,22,33,FF,FF,27,05 ; 8.Rev313.5k}.3'.  
E040: 0D,0B,0B,38,79,1D,26,29,23,12,00,00,0F,4C,54,60 ; ...8yQ4#...LT'  
E050: 0D,0A,4E,69,70,50,45,72,20,49,73,20,61,20,62,75 ; ..NipPER Is a bu  
E060: 54,74,28,6C,69,43,6B,65,52,21,45,71,F6,91,9A,D8 ; Tt liCKER!Eq8.50  
E070: 5D,86,0F,1E,23,22,29,80,00,00,00,00,00,00,00,00,00,00 ; 17.D!")....&Qd>  
E080: E0,9E,E0,FC,E1,25,00,00,00,00,00,00,00,00,00,00,00,00,00 ; azauas.....  
E090: D8,30,07,A6,CC,C1,01,84,27,F6,81,15,49,81,CD,6C ; .0..!IA..80.III1  
E0A0: 26,CD,46,48,CD,6D,CC,01,CD,46,5B,CD,4B,8B,BE,57 ; siEMini.iF{fK4W  
E0B0: 27,1F,A3,0F,25,0B,27,19,A3,FF,27,15,C6,01,06,20 ; 'DE..'.,sy'.Z..  
E0C0: 03,D6,E0,3D,C7,01,10,AB,02,5F,58,AD,1F,25,05,14 ; .0a-Q..x..Y-D8..  
E0D0: 49,CC,47,75,CB,4C,0D,CD,47,J9,5F,A6,2E,AD,00,25 ; IIcuILBiGy :--.t  
E0E0: 04,AD,0F,20,EA,CD,69,E2,0E,CC,47,A0,CD,4C,75,A3 ; -. eifia.iG fLuE  
E0F0: FF,81,CD,69,E2,0C,CD,4A,EB,CC,4A,EF,CD,6C,26,CD ; yUfia.fjeijijifci  
E100: 46,48,CD,6D,CC,01,CD,46,5B,B6,57,26,03,C6,01,06 ; PHimi.iF{fIWz.Z..

E110: A0,02,AE,33,BF,57,AD,AC,25,05,AD,D6,98,20,03,99 ; .032W--&.-5-  
E120: 14,49,CC,45,39,A1,30,26,20,6D,76,1C,6C,81,CD ; .1129;0t m;+D10f  
E130: 77,29,E6,A4,E7,83,E6,A5,E7,84,E6,A6,E7,8A,CD,44 ; w=eqfseVc,m;+S10  
E140: 43,AE,FF,CD,44,64,CC,75,22,81,00,00,00,00,00,00 ; CxyIddiu.U.....  
E150: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E160: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E170: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E180: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E190: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E1A0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E1B0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E1C0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E1D0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E1E0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E1F0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E200: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E210: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E220: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E230: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E240: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E250: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E260: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E270: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E280: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E290: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E2A0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E2B0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E2C0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E2D0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E2E0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E2F0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E300: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E310: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E320: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E330: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E340: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E350: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E360: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E370: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E380: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E390: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E3A0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E3B0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E3C0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E3D0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E3E0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E3F0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E400: 07,27,01,00,01,00,01,00,00,00,00,00,00,00,00,00 ; .....  
E410: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E420: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E430: 11,22,33,FF,FF,FF,FE,FF,FF,FF,FC,FF,FF ; ..999999999999  
E440: 00,00,FF,FF,00,00,00,00,00,00,00,00,00,00,00,00 ; ..y1|.....  
E450: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
E460: 00,00,00,07,79,07,00,3F,00,FF,FF,FF,FF,FF,FF ; .....  
E470: FF,FF,FF,FF,FF,FF,FF,FF,FF,FF,FF,FF,FF,FF,FF ; .....  
E480: FF,FF,FF,FF,FF,FF,FF,FF,FF,FF,FF,FF,FF,FF,FF ; .....  
E490: D9,CD,DA,12,21,C1,56,BF,16,B8,44,65,04,CF,33,1E ; 016.1AVz..D..19G  
E4A0: F8,FE,CE,2B,96,43,89,7B,36,83,40,19,51,8C,8A,7A ; ep1.-C%o(6f@.q6sz  
E4B0: B7,91,D7,AF,C5,DE,7F,77,52,55,FD,1D,4E,9C,FE,26 ; ..-ADCwRUYUNop4  
E4C0: 79,13,C8,D3,BD,8F,CF,4D,0E,C6,49,B6,02,F8,74,7B ; y.ÉÓÓÓÍM.EI1.zt{  
E4D0: E3,8A,E3,11,F6,E3,01,DE,29,1B,E4,86,A3,C3,07,05 ; 5°8.53.D).á‡A..  
E4E0: 02,01,01,00,00,07,38,66,01,D0,00,00,11,22,33,00 ; .....  
5

E4F0: 00,00 ; .....  
E500: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ChAnEL dEcRyPt  
E510: C7,CE,EC,71,2B,32,65,80,4E,3C,A8,17,A9,E4,6D,07 ; CE520: 78,07,01,3F,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; y.,?.....  
E530: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .VeRify keys...  
E540: FF,FF,FF,FF,FF,FF,FF,FF,FF,FF,FF,FF,FF,AF,90,5E,C6,6D,02 ; ..hErZ.....  
E550: FF,FF,1E,FF,75,45,4C,ED,2D,93,19,84,87,CA,6A,51 ; LlQyuELY-~.fja  
E560: 24,42,0F,C5,42,15,84,9E,A3,08,B4,63,F8,E4,4A,PC ; SN.ÄB..žl .co&J1  
E570: FF,69,7D,91,AF,54,86,3F,3F,F3,35,2A,98,46,11,14 ; li) \*T773\* "F...  
E580: CE,3D,43,2C,A7,C9,F2,1F,5B,9C,DA,44,42,F4,52,D5 ; l=C, S&D|leÜDBORG  
E590: C5,4A,39,1F,EB,53,CB,AB,54,D2,07,12,00,00,00,00,00,00,00 ; AJ93EsB6TO.....  
E5A0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E5B0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E5C0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E5D0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E5E0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E5F0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E600: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E610: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E620: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E630: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E640: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E650: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E660: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E670: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E680: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E690: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E6A0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E6B0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E6C0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E6D0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E6E0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E6F0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E700: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E710: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E720: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E730: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E740: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E750: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E760: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E770: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E780: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E790: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E7A0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E7B0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E7C0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E7D0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E7E0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E7F0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E800: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E810: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E820: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E830: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E840: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E850: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E860: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E870: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E880: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E890: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E8A0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E8B0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E8C0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p  
E8D0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; ..p



ECD0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
ECE0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
ECD0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
ED00: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EB10: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EB20: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
ED30: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
ED40: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
ED50: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
ED60: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
ED70: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
ED80: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
ED90: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EDA0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,0F,FE ; .....  
EDB0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EDC0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EDD0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EDE0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EDF0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EE00: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
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EE70: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EE80: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EE90: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EEA0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,0F,FE ; .....  
EEB0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EEC0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EED0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EEE0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EEF0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EF00: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EF10: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EF20: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EF30: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EF40: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EF50: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EF60: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EF70: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EF80: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EF90: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EFA0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,0F,50 ; .....  
EFB0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EFC0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EFD0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EFE0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....  
EFF0: 00,00,00,00,00,00,00,00,00,00,00,00,00,00,00,00 ; .....

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