

Innochat

Single Points of Failure and Innovation

Times shown in: [Eastern Daylight Time](#) and [Coordinated Universal Time](#)

Between **2017 Aug 03 11:45** and **2017 Aug 03 13:15**
8 people sent 106 messages containing #innochat

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12:00:03 16:00:03	John W Lewis @JohnWLewis		Welcome to #innochat! This week's topic is: "Single Points of Failure and Innovation" See the framing post: https://t.co/5KUGzQQrY
12:00:27 16:00:27	Dale H. 🎯🎯🎯🎯 @dshlvrsn		RT @JohnWLewis: Welcome to #innochat! This week's topic is: "Single Points of Failure and Innovation" See the framing post: https://t.co/...
12:02:13 16:02:13	John W Lewis @JohnWLewis		This #innochat topic is not entirely prompted by the recent British Airways systems failure but it serves as a great example!! #innochat
12:03:09 16:03:09	John W Lewis @JohnWLewis		Please say hello as you arrive for #innochat We'll get started with questions in a few minutes.
12:04:21 16:04:21	John W Lewis @JohnWLewis		Hi @dshlvrsn! Are you with us for today's #innochat? I hope so, and look forward to your views on this.
12:04:51 16:04:51	Dale H. 🎯🎯🎯🎯 @dshlvrsn		@JohnWLewis Hello #innochat!
12:04:59 16:04:59	Dale H. 🎯🎯🎯🎯 @dshlvrsn		RT @JohnWLewis: Hi @dshlvrsn! Are you with us for today's #innochat? I hope so, and look forward to your views on this.
12:05:03 16:05:03	John W Lewis @JohnWLewis		Hi @kimflum! Hoping you're with us for #innochat!
12:06:20 16:06:20	John W Lewis @JohnWLewis		@dshlvrsn Good to see you, Dale! This is a slightly wacky topic, but (it seems to me) on that is too often disregar... https://t.co/j1T8Lcry3x
12:07:06 16:07:06	Brittany Brewer @brittany_brew4		@JohnWLewis Hi!!! #innochat
12:07:29 16:07:29	John W Lewis @JohnWLewis		There are some major differences between innovations are regards the single points of failure that they introduce. #innochat
12:07:34 16:07:34	kim flum @kimflum		@JohnWLewis Good morning from LA! #innochat
12:07:45 16:07:45	Dale H. 🎯🎯🎯🎯 @dshlvrsn		@JohnWLewis Totally agree. Too often the 'what if' question never gets asked on the devils advocate side. #innochat
12:07:49 16:07:49	John W Lewis @JohnWLewis		@brittany_brew4 Hi Brittany! Welcome to #innochat!
12:08:01 16:08:01	John W Lewis @JohnWLewis		Q1 What innovations do you know that introduced single points of failure? #innochat
12:08:06 16:08:06	John W Lewis @JohnWLewis		@kimflum Bonjour Kim! #innochat
12:08:13 16:08:13	Dale H. 🎯🎯🎯🎯 @dshlvrsn		RT @JohnWLewis: There are some major differences between innovations are regards the single points of failure that they introduce. #innochat

12:09:35 16:09:35	John W Lewis @JohnWLewis		@dshlvrsn A1 One mentioned in the framing post is centralised IT systems. One fault can stop everything, as British... https://t.co/6zhhJZCLZC
12:10:04 16:10:04	kim flum @kimflum		@JohnWLewis a1) data systems that can be breached through a single security weakness #innochat
12:11:05 16:11:05	Dale H.  @dshlvrsn		@JohnWLewis Many early 'cloud' implementations. Especially those hosted in-house. Plenty of them are still around #innochat
12:11:17 16:11:17	John W Lewis @JohnWLewis		@kimflum Yes, Kim, that's another aspect: security that only needs to be breached in one place. #innochat
12:12:05 16:12:05	John W Lewis @JohnWLewis		@dshlvrsn Yes, Dale, and even some current cloud systems, where people do not follow the advice to deploy in multiple zones. #innochat
12:12:45 16:12:45	Dale H.  @dshlvrsn		@JohnWLewis I know a doctor that purchased an off shore e-records license. When they switched providers all data got flushed. #innochat
12:12:53 16:12:53	John W Lewis @JohnWLewis		What about any system with a single power supply, e.g. single-engined aircraft? #innochat
12:13:19 16:13:19	John W Lewis @JohnWLewis		Ah! Probably not what was expected! #innochat https://t.co/SQACgJdEl1
12:14:37 16:14:37	Dale H.  @dshlvrsn		@JohnWLewis There are plenty of products being created that require another device to operate. No on device control at all. #innochat
12:14:52 16:14:52	John W Lewis @JohnWLewis		A1 There are safety systems which have single points of failure. HOWEVER, one trick is to design them to fail safe. #innochat
12:14:54 16:14:54	kim flum @kimflum		@JohnWLewis a1) also thinking about something that has a key component that's a highly limited resource that runs out #innochat
12:15:43 16:15:43	John W Lewis @JohnWLewis		Good point, Kim. Do you mean something like fuel?  #innochat https://t.co/bLGhQ65jDhh
12:15:59 16:15:59	Dale H.  @dshlvrsn		RT @kimflum: @JohnWLewis a1) also thinking about something that has a key component that's a highly limited resource that runs out #innochat
12:16:38 16:16:38	Dale H.  @dshlvrsn		@JohnWLewis Samsung Note 7 comes to mind...#innochat
12:16:40 16:16:40	John W Lewis @JohnWLewis		A1 There are also human communication systems where there is no "read back", so errors go uncorrected. #innochat
12:17:19 16:17:19	John W Lewis @JohnWLewis		Not being a Samsung user, can you tell us more? #innochat https://t.co/P74WZxddxB
12:17:45 16:17:45	kim flum @kimflum		@JohnWLewis could be a lot of things... an essential ingredient in a vaccine that cannot be synthesized or contraband like uranium #innochat
12:17:51 16:17:51	John W Lewis @JohnWLewis		Next #innochat Q coming up...
12:18:01 16:18:01	John W Lewis @JohnWLewis		Q2 How are single points of failure introduced and how can we avoid them? #innochat
12:18:48 16:18:48	Dale H.  @dshlvrsn		@JohnWLewis Batteries had a tendency to spontaneously combust. Biggest consumer product fail in a while. #innochat... https://t.co/CfFgR9gIw1
12:19:28 16:19:28	John W Lewis @JohnWLewis		A2 Let me start Some single points of failure can be introduced unknowingly, because it seems to make sense to combine functions #innochat
12:19:58 16:19:58	Dale H.  @dshlvrsn		@JohnWLewis What was most surprising was how volatile all cel phone batteries were. I believe that new precautions change that. #innochat
12:20:37 16:20:37	Dale H.  @dshlvrsn		@JohnWLewis Is that the upside of colossal single point of failure? Leads to other innovations... #innochat
12:20:41 16:20:41	John W Lewis @JohnWLewis		@dshlvrsn Definitely! And not only batteries in devices. Do you remember early Boeing 787 problems with batteries in the aircraft? #innochat

12:21:01 16:21:01	Andrea Villeneuve @DreaVilleneuve		@dshlvrsn @JohnWLewis Network infrastructures often have single points of failure - sometimes you don't even know u... https://t.co/sJdN8BFg1r
12:22:10 16:22:10	John W Lewis @JohnWLewis		@DreaVilleneuve @dshlvrsn Hi Andrea! Yes, sometimes there is too little understanding, or analysis done, to know what can happen. #innochat
12:23:47 16:23:47	Dale H.  @dshlvrsn		@JohnWLewis Immature battery tech is why we don't have more electric cars today. #innochat https://t.co/juBfxbZ3yt... https://t.co/m5XKsrJjqR
12:23:53 16:23:53	John W Lewis @JohnWLewis		A2 Many innovations nowadays involve automatic software updates without options to roll back. It's set up for a major failure! #innochat
12:24:47 16:24:47	kim flum @kimflum		@dshlvrsn @JohnWLewis and also why solar is still not as efficient as it could be. #innochat
12:24:55 16:24:55	Andrea Villeneuve @DreaVilleneuve		@JohnWLewis @dshlvrsn Hierarchy can play a role, also. I can be redundant - however, if my connectivity goes done... https://t.co/cbXlxjRTs3
12:25:30 16:25:30	John W Lewis @JohnWLewis		Do you think that, after a few failures, that we might learn better ways to avoid introducing these "single points"? #innochat
12:26:33 16:26:33	Dale H.  @dshlvrsn		@DreaVilleneuve @JohnWLewis An Amazon outage affects way more than Amazon... #innochat
12:26:59 16:26:59	John W Lewis @JohnWLewis		@DreaVilleneuve @dshlvrsn Yes, even if we think that we are protected, if redundant components rely on the same resource, then ...  #innochat
12:27:20 16:27:20	Dale H.  @dshlvrsn		@JohnWLewis 50/50 on this one. As has been pointed out we didn't know they were the single point of failure until they did... #innochat
12:27:43 16:27:43	Andrea Villeneuve @DreaVilleneuve		@dshlvrsn @JohnWLewis Absolutely. #innochat
12:27:51 16:27:51	John W Lewis @JohnWLewis		Let's move on to redundant systems, next Q ... #innochat
12:28:00 16:28:00	John W Lewis @JohnWLewis		Q3 What innovations do you know that removed single points of failure? #innochat
12:28:58 16:28:58	John W Lewis @JohnWLewis		@dshlvrsn Good point! Maybe we'll become more diligent about looking for them! #innochat
12:29:04 16:29:04	Andrea Villeneuve @DreaVilleneuve		@JohnWLewis The solution to a cell phone boot loop caused by failing hardware is replacement. Do we learn if we don't fix? #Innochat
12:29:35 16:29:35	John W Lewis @JohnWLewis		@DreaVilleneuve Probably not! #innochat
12:30:34 16:30:34	John W Lewis @JohnWLewis		If the computer I'm using for #innochat fails, then I can use my iPhone, but they're both using the same Internet connection! ;-) #innochat
12:31:50 16:31:50	Dale H.  @dshlvrsn		@JohnWLewis @DreaVilleneuve Personal example. A LOT of things are tied to my CC. Found fraud last night... Now have... https://t.co/NfDactSIYv
12:32:03 16:32:03	John W Lewis @JohnWLewis		@ReneeTheBIF Btw, hi to you too, Renee!  Well, surely, the new system design could be innovative? #innochat
12:33:01 16:33:01	John W Lewis @JohnWLewis		@ReneeTheBIF Well, I mentioned human communication in which there is no "read back" for confirmation. #innochat
12:33:08 16:33:08	Dale H.  @dshlvrsn		@JohnWLewis Re my CC situation. My bank was able to automatically update my electronic CC on my phone :) #innochat
12:33:38 16:33:38	John W Lewis @JohnWLewis		@ReneeTheBIF I know a great story which is an example of that! #innochat
12:34:25 16:34:25	John W Lewis @JohnWLewis		Oh sorry to hear that, Dale! Glad to hear that it sounds as though it's getting resolved. #innochat https://t.co/CxINVozpgS
12:34:49 16:34:49	Dale H.  @dshlvrsn		@ReneeTheBIF Innovation is about combining so if the parts combined are flawed then so is the innovation itself #innochat

12:35:18 16:35:18	Renee Hopkins @Renee_Hopkins		RT @dshlvrsn: @ReneeTheBIF Innovation is about combining so if the parts combined are flawed then so is the innovation itself #innochat
12:35:39 16:35:39	Dale H.  @dshlvrsn		RT @JohnWLewis: Oh sorry to hear that, Dale! Glad to hear that it sounds as though it's getting resolved. #innochat https://t.co/CxINVozpgS
12:36:15 16:36:15	Dale H.  @dshlvrsn		@JohnWLewis We'll see. They were pretty busy for a few hours. An online vendor caught the trend and let us know. #innochat
12:36:20 16:36:20	Atiksh Singh @Atiksh_Singh		RT @JohnWLewis: If the computer I'm using for #innochat fails, then I can use my iPhone, but they're both using the same Internet connectio...
12:36:29 16:36:29	Andrea Villeneuve @DreaVilleneuve		@dshlvrsn @JohnWLewis That's a nuisance - more so when they change it because of the potential for fraud (though I... https://t.co/2ya4ckHS4d
12:37:37 16:37:37	Dale H.  @dshlvrsn		@DreaVilleneuve @JohnWLewis The fraud was already is full swing. The switch on my phone was instant. The day will c... https://t.co/QbXxH87aiU
12:38:00 16:38:00	John W Lewis @JohnWLewis		Q4 How are single points of failure removed and how can we remove more? #innochat
12:39:20 16:39:20	John W Lewis @JohnWLewis		A4 Duplication of components is one simple and common way. #innochat
12:40:07 16:40:07	Dale H.  @dshlvrsn		RT @JohnWLewis: A4 Duplication of components is one simple and common way. #innochat
12:40:17 16:40:17	John W Lewis @JohnWLewis		@ReneeTheBIF Yup, if we don't know it exists, we're much less likely to remove it! #innochat
12:40:25 16:40:25	Dale H.  @dshlvrsn		@JohnWLewis that didn't work well for Toyota and gas pedal... #innochat
12:41:31 16:41:31	John W Lewis @JohnWLewis		@ReneeTheBIF Definitely, Renee. Some of the failure modes can be due to systemic issues, rather than localised elements. #innochat
12:41:38 16:41:38	Andrea Villeneuve @DreaVilleneuve		@JohnWLewis Hahaha - this is a 'stuff's gotta happen' type of scenario - you can test and test - but until the one... https://t.co/R7chAPdLQP
12:42:09 16:42:09	John W Lewis @JohnWLewis		Not good! I don't know that story. #innochat https://t.co/UczWVHkO6t
12:43:56 16:43:56	John W Lewis @JohnWLewis		@DreaVilleneuve Yes! And the inverse is when we do not check: one redundant component fails, but we don't notice it... https://t.co/bNMWwJWP-EK
12:45:45 16:45:45	Andrea Villeneuve @DreaVilleneuve		@JohnWLewis Also frequent in network infrastructure.  #Innochat
12:45:58 16:45:58	John W Lewis @JohnWLewis		Is anyone concerned about autonomous vehicles and all the potential failure scenarios? #innochat
12:47:12 16:47:12	John W Lewis @JohnWLewis		@dshlvrsn Every time we introduce another "layer", we potentially introduce more complex failure modes! #innochat
12:47:33 16:47:33	Andrea Villeneuve @DreaVilleneuve		@JohnWLewis Impossibility of odds - edu software game put through every testing scenario, runs on a 'beat the timer... https://t.co/zBu4qWJxpn
12:47:45 16:47:45	John W Lewis @JohnWLewis		Last Q coming up... #innochat
12:48:01 16:48:01	John W Lewis @JohnWLewis		Q5 What can we learn from the history of innovations introducing and removing single points of failure? #innochat
12:49:02 16:49:02	Andrea Villeneuve @DreaVilleneuve		@JohnWLewis Never tested ending the game with 0 left on the clock. Crashed the program 2/2 #innochat
12:49:07 16:49:07	Dale H.  @dshlvrsn		RT @JohnWLewis: Is anyone concerned about autonomous vehicles and all the potential failure scenarios? #innochat
12:49:54 16:49:54	John W Lewis @JohnWLewis		Q5... e.g. what will British Airways do after their recent power system failure? Reportedly, it cost them £58Million. #innochat

12:50:05 16:50:05	Dale H. 🎯🎯🎯🎯🎯 @dshlvrsn	 @JohnWLEwis I can't wait to see the blend of auto and non. I'm guessing a few will figure out how to mess with the... https://t.co/cDDSQtJVQj
12:50:17 16:50:17	John W Lewis @JohnWLEwis	 Oh dear! Not good, at all! #innochat https://t.co/lvTZY65Xyp
12:51:18 16:51:18	John W Lewis @JohnWLEwis	 Exactly: there's auto and non-auto, and there's auto and auto, and there's auto and all the other things around (pe... https://t.co/CbUbZoL9Ho
12:51:20 16:51:20	Andrea Villeneuve @DreaVilleneuve	 @JohnWLEwis Which leads me to - you can't plan for single points of failure - you can prepare. #Innochat
12:51:47 16:51:47	Dale H. 🎯🎯🎯🎯🎯 @dshlvrsn	 @JohnWLEwis This was another fun one... #innochat https://t.co/aq6CHloQc6
12:53:44 16:53:44	Dale H. 🎯🎯🎯🎯🎯 @dshlvrsn	 @DreaVilleneuve @JohnWLEwis I guess we could be sensitive to "That will never happen" statements. #innochat They 'n... https://t.co/rqMaYwVxim
12:54:02 16:54:02	John W Lewis @JohnWLEwis	 Yup! Domain name registration is one point, that's difficult/impossible to duplicate! #innochat https://t.co/ksGfpf2cY7
12:55:23 16:55:23	Dale H. 🎯🎯🎯🎯🎯 @dshlvrsn	 @JohnWLEwis And a random civilian, detected, investigated and fixed (at least started the fix) the issue... #innochat
12:56:28 16:56:28	Andrea Villeneuve @DreaVilleneuve	 @dshlvrsn @JohnWLEwis Seriously - I've seen this happen more often than people are willing to talk about. #Innochat
12:57:30 16:57:30	John W Lewis @JohnWLEwis	 Also security certificates expire. #innochat https://t.co/V7j42AwIf5
12:58:00 16:58:00	John W Lewis @JohnWLEwis	 Thank you, all innocats, for your erudite contributions to another lively #innochat! See you again next week!
12:58:45 16:58:45	Andrea Villeneuve @DreaVilleneuve	 @dshlvrsn @JohnWLEwis We now send notices at 90/60/30/5 days and then pick up the phone, to help #Innochat
12:59:11 16:59:11	John W Lewis @JohnWLEwis	 Anyway, folks, when you're flying in a twin-engined aircraft, you're safer! But...you're twice as likely to have an engine failure!! #innochat
13:00:23 17:00:23	John W Lewis @JohnWLEwis	 @ReneeTheBIF Thank you, Renee, for taking part and all your support! #innochat
13:02:17 17:02:17	Andrea Villeneuve @DreaVilleneuve	 Thanks @JohnWLEwis and all the contributors. Another great chat! #innochat
13:03:16 17:03:16	John W Lewis @JohnWLEwis	 @DreaVilleneuve Thank you very much, Andrea. As you know, any suggestions for topics are always welcome. #innochat
13:06:36 17:06:36	Greg Payne @greg_payne01	 @dshlvrsn @JohnWLEwis After I read this, the attraction of autonomous vehicles pretty much went down the toilet. Da... https://t.co/Sh4VW3q6Le