Amazon Echo inadventedly sends recorded conversation
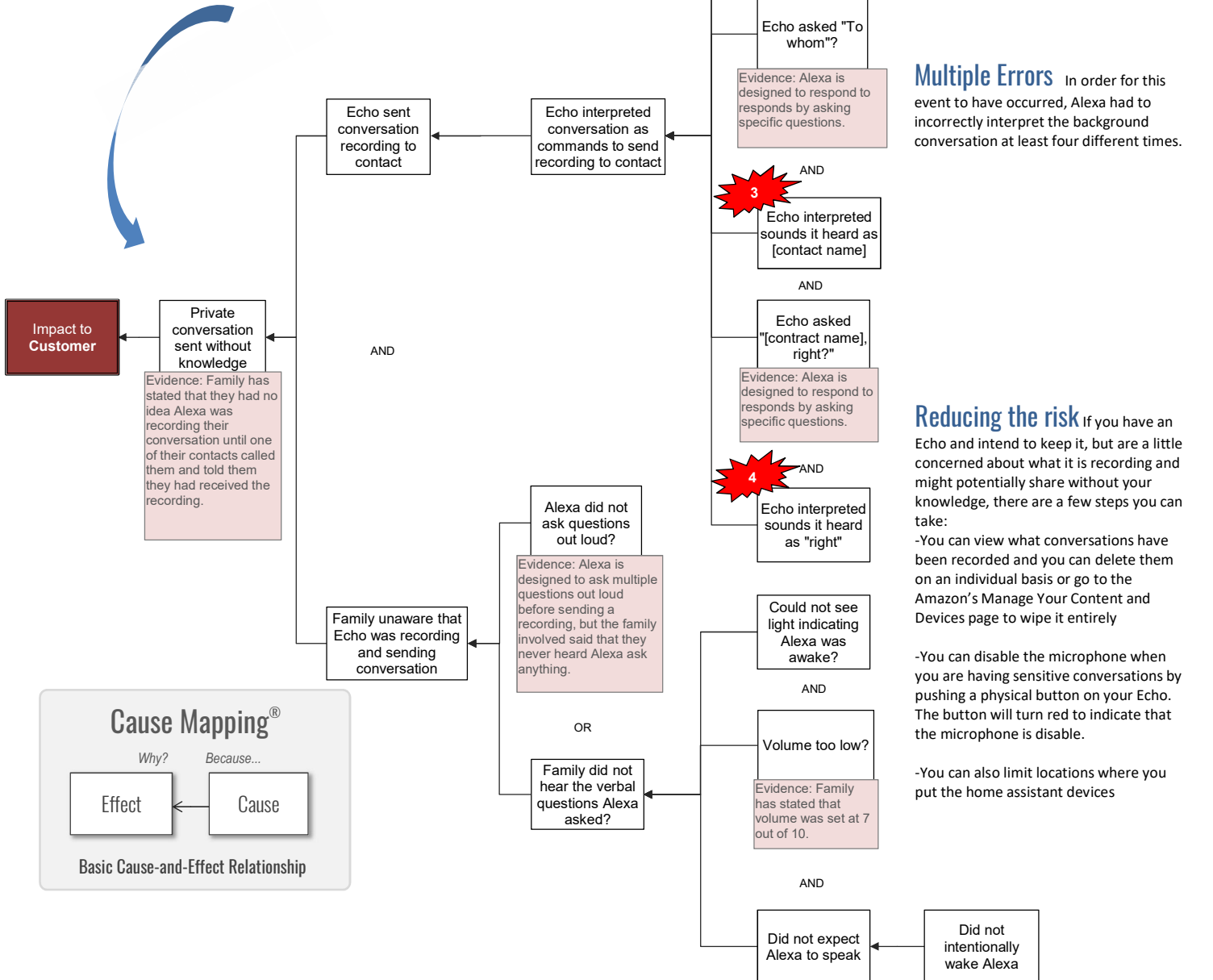
Amazon Echoes recently made headlines after reports that a family's private conversation was recorded and sent to someone on their contact list without their knowledge. Beyond the creepy factor of being recorded without your knowledge, it is easy to see how a situation like this could quickly get awkward.

Building a Cause Map

A Cause Map is a visual, intuitive method for performing root cause analysis and is built by starting at one organization goal that was impacted by the incident and asking "why" questions. In this example, the starting point will be the customer service goal which was impacted because a customer had their private conversation recorded and shared without their knowledge or consent.

Multiple Errors

In order for this event to have occurred, Alexa had to incorrectly interpret the background conversation at least four different times.

Reducing the risk

If you have an Echo and intend to keep it, but are a little concerned about what it is recording and might potentially share without your knowledge, there are a few steps you can take:

-You can view what conversations have been recorded and you can delete them on an individual basis or go to the Amazon's Manage Your Content and Devices page to wipe it entirely

-You can disable the microphone when you are having sensitive conversations by pushing a physical button on your Echo. The button will turn red to indicate that the microphone is disable.

-You can also limit locations where you put the home assistant devices

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Cause Map Flow:

Family had conversation in their house
AND
Echo was located in the room
AND
Echo woke up ← Echo heard sounds it interpreted as "Alexa" [1]

→ Echo recorded conversation
Evidence: Echos are designed to record and transcribe your voice when it is woken up.

AND

Echo heard sounds it interpreted as "send message" [2]
AND
Echo asked "To whom"?
Evidence: Alexa is designed to respond to responds by asking specific questions.
AND
Echo interpreted sounds it heard as [contact name] [3]
AND
Echo asked "[contract name], right?"
Evidence: Alexa is designed to respond to responds by asking specific questions.
AND
Echo interpreted sounds it heard as "right" [4]

→ Echo interpreted conversation as commands to send recording to contact
→ Echo sent conversation recording to contact
AND
Family unaware that Echo was recording and sending conversation

Alexa did not ask questions out loud?
Evidence: Alexa is designed to ask multiple questions out loud before sending a recording, but the family involved said that they never heard Alexa ask anything.
OR
Family did not hear the verbal questions Alexa asked?

Could not see light indicating Alexa was awake?
AND
Volume too low?
Evidence: Family has stated that volume was set at 7 out of 10.
AND
Did not expect Alexa to speak ← Did not intentionally wake Alexa

→ Private conversation sent without knowledge
Evidence: Family has stated that they had no idea Alexa was recording their conversation until one of their contacts called them and told them they had received the recording.

→ Impact to **Customer**

Cause Mapping®

Why? ————— Because...

Effect ← Cause

Basic Cause-and-Effect Relationship