Interview Questions

SECTION A: Terminology

1. You may have heard the term "internet of things," or IoT for short. Can you talk a little about what you think the internet of things is?

2. You may have heard the term "smart devices." What about devices makes them "smart?"

3. What does it mean to have a smart home?

4. What do you think is the relationship, if any, between the internet of things and smart devices?

SECTION B: Purchase and General Use

[Very briefly review devices, hubs, and virtual assistants that participant listed in the screener.]

When answering the interview questions, please talk about your overall or general experiences with your devices. So, there's no need to answer a question separately for every device you own. However, if you had any particularly notable or different experiences with specific devices, please do mention those.

5. Who was involved in the decision to purchase the smart home devices?

6. What are the reasons the smart home devices were purchased?
    *   *[If participant doesn't mention sources of information:]* How did you [or a household member] learn about the devices before buying them?

7. What hesitations, if any, did you have about getting the devices prior to purchase?

8. For what purposes do you use your smart home devices?

9. How do you access the devices – remotely with an app, while physically in the home, or both?
    *   *[If using a virtual assistant:]* How do you access your devices using *[insert assistant name]*?
    *   *[If using a hub:]* Do you use the hub app to access your devices, or do you use an individual app specific to each device?
    *   How do others in your household use the smart home devices?

10. What do you like most about the devices?
    *   What are the benefits, if any, of having these devices?

11. What do you like least or dislike about the devices?

12. How have your opinions or expectations of the devices changed, if at all, from the time you first used them until now?

13. What concerns, if any, do you have about the devices?

14. In what ways, if any, have you changed your behaviors because of your smart home devices?

15. In what ways, if any, have you become reliant on your smart home devices?

16. What do the other members of your household think about the smart home devices?

17. Have you had visitors to the home who have had to use the smart home devices?
    - *[If yes:]* How did they use the devices?
    - What did they think?

18. What smart home devices, if any, have you had in the past, but are no longer using?
    - What are the reasons for no longer using this device?

19. What kinds of things would you like to be able to do with your devices, but haven't, don't know how, or are not sure that you can?

20. What devices would you like to get in the future? For what reasons?

SECTION C: Installation and Troubleshooting

21. Who installed the smart home devices?

22. Who administers (configures or maintains) the smart home devices?

<mark>For Installers:</mark>

23. In general, what was your experience with the installation of the devices?
    - What went well?
    - What didn't go as well?

24. Have you ever had to reinstall a device? If so, what were the reasons for the reinstallation?

25. *[If have more than one device:]* What has been your experience adding additional devices to the home?

<mark>For DIYers:</mark>

26. In the screening questionnaire you indicated you build your own or create extensions for your smart home devices and platforms. Can you briefly summarize what you've done?

<mark>For Administrators:</mark>

27. What configuration changes, if any, have you made to the devices since installation?
    - *[If participant makes configuration changes:]* How often do you make changes?

Let's now talk about manufacturer updates to your devices. These could be updates that fix known issues or updates to the next version of software or firmware.

28. How do you know that updates are available or needed?
    - How are updates done on your device - automatically or do you have to initiate them?
    - *[If manual initiation:]* How often do you check for updates?
        - How do you decide whether to update or not update?

<mark>For Everyone:</mark>

29. How do you try to figure out how to do something new with your devices?
    - What sources do you consult or use?

30. What kinds of problems, if any, have you encountered while using your smart home devices?
    - How did you go about trying to resolve those problems?

SECTION D: Privacy

31. What type of information, if any, do you think the devices are collecting?
    - Which of this information, if any, would you consider to be personal?

32. Where do you think the information goes?

33. In what ways, if any, does your device or the device manufacturer provide a means to control or manage what information is collected and how it is shared?

34. What are your concerns, if any, about how information is collected, stored, and used and who can see that information?
    - In what ways, if any, have you acted to minimize or alleviate some of those concerns?
    - What kinds of actions would you like to be able to take to address your concerns, but haven't, don't know how, or are not sure that you can?

35. Who do you think is responsible for protecting the privacy of information collected by your smart home device?

SECTION E: Security

For this next set of questions, when I am talking about security, I don't mean physical security like someone breaking into your home. Rather, I'm referring to how the devices protect your information from people who might try to access your devices without your permission or even someone in your household who might do something purposefully or accidentally.

36. What are your concerns, if any, about the security of your devices?
    - In what ways, if any, have you acted to minimize or alleviate some of those concerns?
    - What kinds of actions would you like to be able to take to address your concerns, but haven't, don't know how, or are not sure that you can?

37. What restrictions, if any, are placed on who in your home can use the devices and what they can do?

38. How do you authenticate to or get into any apps associated with the device? *[If not sure how to answer:]* for example, password, PIN, fingerprint, face recognition
    - What issues or problems, if any, have you experienced with authentication?

39. Does more than one person in your household use an app to access the same device?
    - Does more than one person use the same account and authentication to access the app?
    - What concerns, if any, do you have with multiple people having access to the app?

40. Who do you think is responsible for the security of your smart home devices?

SECTION F: SAFETY

For the next two questions, when I talk about safety, I'm referring to the physical safety and well-being of the people and items in your household.

41. In what ways, if any, do you think the devices contribute to safety?

42. In what ways, if any, do you think the devices might pose a safety risk?

SECTION G: Conclusion

43. Is there anything else you'd like to add related to anything we've talked about?