Auto Attendant

AUTO ATTENDANT / RESEARCH & PRACTICAL GUIDANCE

Phone Tree Design: How Many Options, What Order, How Long

> Get a business phone number with a simple auto attendant menu from Auto Attendant. A caller picks who they need and the call rings that person's own mobile, so nobody on your team has to publish a personal number.

Published by Auto Attendant · 2026-10-29 · phone tree · automated phone tree · phone menu options · how many options in a phone menu · phone tree examples

Original article: https://autoattendant.io/articles/phone-tree-design-how-many-options

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The short answer

For a small business, use one menu level with three to five options, put the reason most people call first, number the keys 1, 2, 3 without gaps, and keep the whole menu under about 20 seconds when read aloud. "Four or five options" is a widely repeated convention, not a finding from a study, so treat it as a starting point and let your own call log decide.

The full evidence review behind these rules is on our phone menu design evidence page; this article is the practical version.

What a phone tree is, and why callers dislike them

A phone tree (also called a phone menu or automated phone tree) is the recording that answers a call and says "for X, press 1; for Y, press 2", then sends the caller somewhere based on the key they press. Usability researchers at Nielsen Norman Group describe phone trees as "notoriously frustrating", but add that there are "many small ways to make them more usable and less miserable" (NN/g, The UX of Phone Trees).

Most of that frustration comes from choices a small business controls: too many options, the wrong order, prompts that run long, and no way out.

How many options: the five-item convention and what the evidence says

Several published guidelines land on four or five options per menu:

- Nielsen Norman Group's guideline 7 says to limit each menu and submenu to 4-5 choices and to make each choice distinct (NN/g, 16 Usability Guidelines).

- The State of Missouri's IVR guideline (2006) says to "strive to keep the number of menu items to a maximum of five", because callers cannot see the list and have to remember it (Missouri Office of Administration).
- When USAGov rebuilt its phone line, it "limited the main menu to five topics" (USAGov blog, March 2020).

None of these is an experiment showing five is right; they are practitioner conventions. The research that exists pushes against treating five as a law. Commarford, Lewis, Smither and Gentzler (Human Factors, 2008) point out that the five-item guideline is usually justified by citing Miller's 1956 "magical number seven" paper, and argue that Miller's paper does not support it (Commarford et al., 2008). In their experiment, people using a broad menu (more options per level, fewer levels) performed better and were more satisfied than people using a deep one, and the advantage was larger for people with low working memory capacity.

Mind the limits: it tested email tasks on one speech-enabled system, in a broad and a deep version. It shows that small nested menus are not automatically safer; it does not show that seven options beat five on a keypad menu for a dental office.

Practical reading:

Number of options	When it works
1 (no menu)	Everyone who calls wants the same person. Skip the menu entirely.
2-3	Most small offices. Short, easy to remember.
4-5	The common convention. Fine if every option is distinct and frequently used.
6-7	Only if each option is short and clearly different, and the call log shows real demand for each.
8+	Split the business onto separate numbers or merge options.

Wide or deep: why one level beats three

A deep tree ("press 1 for service, then 2 for existing customers, then 3 for billing") makes the caller remember choices across several menus, and each level adds another prompt to sit through. The Commarford result above is the main evidence that a broader, shallower structure is easier on memory.

Below ten people, a second level is rarely needed. If "existing customer, billing" and "existing customer, scheduling" both ring the same office manager, they are one option.

What order to put the options in

Three rules, all from published guidance:

1. **Most frequent first.** NN/g lists presenting options "starting from the most frequently selected one down to the least frequently selected one" as a convention callers expect (NN/g). Missouri says the same (Missouri OA), and USAGov put its two most popular topics, taxes and passports, at the start of its menu (USAGov).

2. **Don't skip numbers.** Missouri's guideline warns against "For Option A, press 1; for Option B, press 3", because people expect sequential keys.
3. **Say the option before the key.** NN/g guideline 14: describe the option before its number, so callers don't hold a digit in memory. "For billing, press 3" beats "Press 3 for billing."

Ordering is also about time: the caller who wants your fifth option hears the four before it on every call.

How long the menu can run: a timing table

NN/g guideline 10 is simply "Be concise": skip promotions and filler (NN/g). To make that concrete, you can estimate prompt length from word count. ITU-T Recommendation E.183 says announcements should not exceed normal conversation speed, and gives 150 to 200 words per minute as normal for English (ITU-T E.183). The table below assumes **150 words per minute (0.4 seconds per word)**, the slow end of that range, plus an assumed **0.5-second pause** between options. Missouri's guideline asks for an "appropriate pause" between items because a mobile caller has to move the phone away from their ear to press a key (Missouri OA).

Seconds per option prompt

Prompt	Words	Seconds at 150 wpm	Seconds at 200 wpm
"For billing, press 3."	4	1.6	1.2
"For a new project quote, press 1."	7	2.8	2.1
"Press 3 if you are calling about an invoice or a payment."	12	4.8	3.6
"If you are calling about an invoice or a payment you have already made, press 3."	16	6.4	4.8

Whole menu: 12-word greeting plus 7-word options, 0.5 s pause each

Options	Seconds at 150 wpm	Seconds at 200 wpm
2	11.4	8.8
3	14.7	11.4
4	18.0	14.0
5	21.3	16.6
6	24.6	19.2
7	27.9	21.8

Wording matters as much as option count: four 16-word options take longer than seven 4-word ones. A five-option menu already runs about 20 seconds at a careful rate, a reasonable ceiling. Text-to-speech voices each have their own pace, so call your menu and time it with a stopwatch.

NN/g's guideline 15 prefers a recorded human voice to a synthetic one (NN/g). With text-to-speech, keep sentences short and plain, avoid abbreviations and long numbers, and listen before going live.

The design procedure, with a worked example

Here is the procedure for a first menu, followed by a worked example for a three-person renovation company.

1. **Log why people call.** For two weeks, note the reason for each call in a few words (or reconstruct it from memory and voicemails).
2. **Group reasons by who handles them**, not by your org chart. Callers think in tasks ("I need a quote"), not departments.
3. **Rank by volume.** The biggest group becomes key 1.
4. **Ask whether a message can answer it.** Hours, address and "we are not hiring" can be a short recorded message instead of a call to a person.
5. **Cut or merge until you reach three to five options.** Rare reasons go into "anything else".
6. **Write each option as "For [task], press [n]."** Count the words; time the whole menu.
7. **Test with two people who have never heard it.** Give each a reason to call and watch which key they press.

Option-ordering worksheet

Copy this table, fill in the first four columns from your log, then assign keys.

Reason the caller gives	Calls in 2 weeks	Share	Handled by	Message could answer it?	Key

Worked example, Northside Renovations (owner, office manager, site lead):

Reason the caller gives	Calls in 2 weeks	Share	Handled by	Message could answer it?	Key
Wants a quote for a new job	38	42%	Owner	No	1
Job in progress: schedule, delays, site question	24	27%	Site lead	No	2
Invoice or payment	14	16%	Office manager	No	3
Hours, address, directions	8	9%	Anyone	Yes	4
Suppliers, job seekers, other	6	7%	Office manager	No	merge into 3 or voicemail

(Illustrative figures, not real data.) About 70% of callers reach the right person on key 1 or 2.

Scripts you can adapt

Four-option menu (34 words, about 16 seconds at 150 wpm with pauses):

> Thanks for calling Northside Renovations. For a new project quote, press 1. For a project already underway, press 2. For billing or any other question, press 3. For our hours and address, press 4.

Two-option menu for a solo practitioner (17 words, about 8 seconds):

> Thanks for calling Harbour Bookkeeping. If you're a current client, press 1. For anything else, press 2.

Closed-hours message (no menu):

> Thanks for calling Northside Renovations. We're closed right now. Our hours are Monday to Friday, 8 to 5. Please leave your name, number and the address of the job after the tone, and we'll call you back the next business day.

For more ready-to-use wording by business type, see our phone menu scripts for small business, and for whole call flows, the call flow templates.

Escape hatches: repeat, operator, voicemail

A menu with no way out is the fastest way to lose a caller. Published guidance converges on three exits:

- **Repeat.** NN/g lists "*" to repeat the menu as a common convention, and USAGov built every branch so callers can "repeat the options or return to the previous menu" (USAGov).
- **A person.** NN/g lists pressing "0" for a live representative as a convention, and Missouri recommends a way to reach "an actual human operator (usually, this is the '0' key)".
- **Undo.** NN/g guideline 5 says to always let callers go back.

On a one-level menu, "go back" barely matters, another argument for staying flat. What matters most is that every option ends somewhere useful: if nobody picks up, the caller reaches voicemail, not a dead line. Check which exits your phone system supports before announcing them; a key that does nothing is worse than none.

Checklist before you go live

- [ ] One menu level; three to five options (seven at most).
- [ ] Most frequent reason on key 1; keys numbered without gaps.
- [ ] Every option phrased "For [task], press [n]".
- [ ] No promotions or "please listen carefully as our options have changed".
- [ ] Whole menu timed at about 20 seconds or less.
- [ ] Every option ends at a person or voicemail, never silence.
- [ ] A separate closed-hours message with your hours.
- [ ] Tested by two people who had never heard it.
- [ ] Reviewed again after a month of real calls.

FAQ

How many options is too many in a phone menu?

There is no proven cut-off. Four or five is the common convention (NN/g), and research suggests one broad menu is easier than several small nested ones (Commarford et al., 2008). In practice, if the menu takes more than about 20 seconds to hear, or two options sound alike, you have too many.

Should I put sales first?

Put first whatever most callers want. For many small businesses that is new enquiries, but if your log shows most calls are from existing customers, they go on key 1. Ordering by frequency is the convention in every guideline cited here.

Do I need a submenu?

Rarely, below ten people. A submenu helps only if its options go to different people or messages.

What about a phone tree with no options at all?

If every caller wants the same person, a single direct action (ring that person, then voicemail) is better than a one-option menu. Our explainer on what an auto attendant is covers when a menu is worth having at all.

Auto Attendant menus support up to seven options, with each option ringing up to three phones in turn, taking a voicemail or playing a message.

Source links

Links cited in this article, in order of first appearance. Full addresses are provided for readers using extracted text.

1. https://www.nngroup.com/videos/ux-of-phone-trees
2. https://www.nngroup.com/articles/phone-tree-guidelines
3. https://oa.mo.gov/sites/default/files/CC-Access-InteractiveVoiceRecognition-IVR-Guidelines112806.pdf
4. https://www.usa.gov/blog/2020/03/press-or-say-1-usagov-expands-its-use-of-interactive-voice-response
5. https://stars.library.ucf.edu/facultybib2000/233
6. https://www.itu.int/rec/T-REC-E.183-199803-I/en

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About Auto Attendant

Auto Attendant gives a small business one phone number and a recorded menu that sends each caller to the right person. The call rings the mobile that person already carries, using their normal dialler and their normal mobile plan. Pricing is a single flat monthly fee for the whole company rather than a charge for each user, and there is no app, desk phone or hardware to install.

One number, one menu, the phones you already own

A caller dials the business number, hears a short greeting and chooses an option. Each option can ring one mobile, ring several at once so whoever is free answers first, or try people one after another in a set order. There is no limit on how many people sit on the receiving end, because nobody is billed per seat. Setup is done by the owner in a few minutes: pick a number, write the greeting, and point each option at a mobile.

What it deliberately is not

An auto attendant routes a call; it does not answer one. Nobody at Auto Attendant speaks to callers, and no AI stands in for a receptionist. A business that wants its calls handled, messages taken and appointments booked wants an answering service, which is a different product at a different price. A business that needs call recording, queues, agent dashboards or CRM integration wants a contact centre platform. Auto Attendant is for the case where the call should simply reach the right pocket.

Keeping personal numbers off the internet

The business number is the only number a caller ever sees. Personal mobile numbers are never displayed and never given out, which is what lets an owner put a number on a website, an invoice, a van or a Google Business Profile without handing a personal line to everyone who finds it. An existing advertised number can be ported across and kept, and the old line keeps working while the port is in progress.

Work with Auto Attendant

Visit Auto Attendant to see how it works, how it compares to a personal mobile, Google Voice and a full phone platform, and the current pricing.

Telephone number portability, emergency calling and caller-ID rules differ by country and change over time. Articles published here describe general practice and cite primary regulator and carrier sources; they are not a guarantee of any timeline, and they are not legal or regulatory advice for a specific business.

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