REDMOND, Wash.—Steve Ballmer paced his corner office on a foggy January morning here, listening through loudspeakers to his directors' voices on a call that would set in motion the end of his 13-year reign as Microsoft Corp.'s chief executive.

Microsoft lagged behind Apple Inc. and Google Inc. in important consumer markets, despite its formidable software revenue. Mr. Ballmer tried to spell out his plan to remake Microsoft, but a director cut him off, telling him he was moving too slowly.

"Hey, dude, let's get on with it," lead director John Thompson says he told him. "We're in suspended
animation." Mr. Ballmer says he replied that he could move faster.

But the contentious call put him on a difficult journey toward his August decision to retire, sending Microsoft into further tumult as it began seeking a successor to a man who has been at its heart for 33 years.

"Maybe I'm an emblem of an old era, and I have to move on," the 57-year-old Mr. Ballmer says, pausing as his eyes well up. "As much as I love everything about what I'm doing," he says, "the best way for Microsoft to enter a new era is a new leader who will accelerate change."

Mr. Ballmer, in a series of exclusive interviews tinged with his characteristic bluster and wistfulness, tells of how he came to believe that he couldn't lead Microsoft forward—that, in fact, Microsoft would not be led by him because of the very corporate culture he had helped instill.

Mr. Ballmer and his board have been in agreement: Microsoft, while maintaining its strong software business, must shake up its management structure and refocus on mobile devices and online services if it is to find future profit growth and reduce its dependence on the fading PC market.

The board's beef was speed. The directors "didn't push Steve to step down," says Mr. Thompson, a longtime technology executive who heads the board's CEO-search committee, "but we were pushing him damn hard to go faster."

Investors, too, were pushing for transformation. "At this critical juncture, Wall Street wants new blood to bring fundamental change," says Brent Thill, a longtime Microsoft analyst at UBS AG. "Steve was a phenomenal leader who racked up profits and market share in the commercial business, but the new CEO must innovate in areas Steve missed—phone, tablet, Internet services, even wearables."

The Microsoft board's list of possible successors includes, among others, former Nokia Corp. CEO Stephen Elop, Microsoft enterprise-software chief Satya Nadella and Ford Motor Co. CEO Alan Mulally, say people familiar with the search. In conjunction with Microsoft's annual shareholder meeting Nov. 19, the board plans to meet and will discuss succession, says a person familiar with the schedule.

Representatives for Mr. Elop and Mr. Nadella say the men have no comment on the search. A Ford
spokesman says "nothing has changed" since November 2012, when Ford said Mr. Mulally would remain CEO through at least 2014, adding: "Alan remains absolutely focused on continuing to make progress on our One Ford plan. We do not engage in speculation."

Microsoft's next chief will be only the third in its history. Mr. Ballmer joined in 1980 at the suggestion of his Harvard University pal, co-founder Bill Gates, and is its second-largest individual shareholder and a billionaire.

After growing up in Detroit, where his father was a Ford manager, Mr. Ballmer roomed down the hall from Mr. Gates at Harvard. He dropped his Stanford M.B.A. studies to become Microsoft's first business manager.

He was Mr. Gates's right-hand man, helping turn Microsoft into a force that redefined how the world used computers. He took the reins in 2000, further solidifying Microsoft's position in software markets and keeping the profit engine humming. Revenue tripled during his tenure to almost $78 billion in the year ended this June, and profit grew 132% to nearly $22 billion.

But while profit rolled in from Microsoft's traditional markets, it missed epic changes, including Web-search advertising and the consumer shift to mobile devices and social media.

Last year, Mr. Ballmer sought to reboot. In an October shareholder letter, he declared Microsoft would become a provider of "devices and services" for businesses and individuals.

He told the board he wanted to lead the charge and remain until his youngest son graduated from high school in four years. He began his own succession planning by meeting potential candidates in what he calls "cloak-and-dagger" meetings.

Mr. Ballmer's reboot plan required a corporate overhaul. For guidance, he called his longtime friend, Ford's Mr. Mulally, once a top Boeing Co. executive. They met Christmas Eve at a Starbucks on Mercer Island near Seattle.

Mr. Ballmer brought a messenger bag, pulling out onto a table an array of phones and tablets from Microsoft and competitors. He asked Mr. Mulally how he turned around Ford. For four hours, he says, Mr. Mulally detailed how teamwork and simplifying the Ford brand helped him reposition it.

The Ford spokesman says: "Ford and Microsoft have a long-standing business partnership, and many of our
leaders discuss business together frequently."

It was a wake-up call for Mr. Ballmer, who had run the software giant with bravado and concedes that "I'm big, I'm bald and I'm loud."

Microsoft's culture included corporate silos where colleagues were often pitted against one another—a competitive milieu that spurred innovation during Microsoft's heyday but now sometimes leaves groups focused on their own legacies and bottom lines rather than on the big technology picture and Microsoft as a whole.

He recalls thinking: "I'll remake my whole playbook. I'll remake my whole brand."

The board liked his new plan. But as Mr. Ballmer prepared to implement it, his directors on the January conference call demanded he expedite it.

Pushing hardest, say participants, were Mr. Thompson, who had held top jobs at International Business Machines Corp. and Symantec Corp., and Stephen Luczo, CEO of Seagate Technology PLC. Mr. Luczo declines to comment.

"But, I didn't want to shift gears until I shipped Windows," Mr. Ballmer says he told the directors on the call, explaining that he hadn't moved faster in late 2012 because he was focused on releasing in October the next generation of Windows, Microsoft's longtime cash cow.

Mr. Ballmer swung into gear, drafting a management-reorganization plan to discuss during a March retreat at a Washington mountain resort. He invited Mr. Thompson and another director, to get board perspective on his plan.

Instead, he got more pressure. Mr. Thompson says he told Mr. Ballmer and his executives: "Either get on the bus or get off."

Mr. Ballmer says he took that as an endorsement of his plan. That evening, some of them played poker, drank Scotch and gathered around the lodge's fireplace.

The next month, hedge fund ValueAct Capital disclosed a $2 billion Microsoft stake. ValueAct's CEO Jeffrey Ubben at a conference said Microsoft's stock was undervalued. Other shareholders were urging it to increase its dividend and shed noncore businesses. A ValueAct spokesman declines further comment. In September, Microsoft increased its dividend but hasn't sold off businesses investors have urged it to, such as the Bing search engine.

Mr. Ballmer hewed to Mr. Mulally's recommendations. For years, he had consulted with Microsoft's unit chiefs individually, often dispensing marching orders. Now, he began inviting them to sit together in a circle in his office to foster camaraderie.
It was a lurching corporate-culture change. "It's not the way we operated at all in Steve's 30-plus years of leadership of the company," says Mr. Nadella, an executive vice president.

Mr. Ballmer says his senior team struggled with the New Steve. Some resisted on matters large—combining engineering teams—and small, such as weekly status reports.

Qi Lu, an executive vice president, submitted a 56-page report on applications and services. Mr. Ballmer sent it back, insisting on just three pages—part of a new mandate to encourage the simplicity needed for collaboration. Mr. Lu says he retorted: "But you always want the data and detail!"

Mr. Ballmer says he started to realize he had trained managers to see the trees, not the forest, and that many weren't going to take his new mandates to heart.

In May, he began wondering whether he could meet the pace the board demanded. "No matter how fast I want to change, there will be some hesitation from all constituents—employees, directors, investors, partners, vendors, customers, you name it—to believe I'm serious about it, maybe even myself," he says.

His personal turning point came on a London street. Winding down from a run one morning during a May trip, he had a few minutes to stroll, some rare spare time for recent months. For the first time, he began thinking Microsoft might change faster without him.

"At the end of the day, we need to break a pattern," he says. "Face it: I'm a pattern."

Mr. Ballmer says he secretly began drafting retirement letters—ultimately some 40 of them, ranging from maudlin to radical.

On a plane from Europe in late May, he told Microsoft General Counsel Brad Smith that it "might be the time for me to go." The next day, Mr. Ballmer called Mr. Thompson, with the same message.

Mr. Thompson called two other directors, Mr. Luczo and Charles Noski, former Bank of America Corp. vice chairman, and says he told them: "If Steve's ready to go, let's see if we can get on with this."

At the board's June meeting in Bellevue, Wash., Mr. Ballmer says he told the directors: "While I would like to stay here a few more years, it doesn't make sense for me to start the transformation and for someone else to come in during the middle."

The board wasn't "surprised or shocked," says Mr. Noski, given directors' conversations with Mr. Ballmer. Mr. Thompson says he and others indicated that "fresh eyes and ears might accelerate what we're trying to do here."

Mr. Gates, Microsoft's chairman, told Mr. Ballmer that he understood from experience how hard it was to leave when Microsoft was your "life," says someone familiar with Mr. Gates's thinking. Mr. Gates told the board he supported Mr. Ballmer's departure if it ensured Microsoft "remains successful," this person says.

That night, after Mr. Ballmer watched his son sing at his high-school baccalaureate ceremony—a Coldplay song with the lyrics: "It's such a shame for us to part; nobody said it was easy; no one ever said
it would be this hard”—he says he told his wife and three sons he was probably leaving Microsoft. They all cried.

On Aug. 21, the board held a conference call to accept Mr. Ballmer's retirement. Mr. Gates and Mr. Thompson sat with Mr. Ballmer in his office. It was over in less than an hour.

Mr. Ballmer vows not to be a lame duck.

"Charge! Charge! Charge!" he bellows, jumping up from an interview and lunging forward while pumping his fist forward like a battering ram. "I'm not going to wimp away from anything!"

He has remained active, shepherding a $7.5 billion deal to buy Nokia's mobile businesses and fine-tuning holiday-marketing strategies for Microsoft's Surface tablets and new Xbox game console. In October, Microsoft reported better-than-expected quarterly earnings.

At his final annual employee meeting this September, Mr. Ballmer gave high-fives and ran off the stage to the song: "(I've Had) The Time of My Life" from the movie "Dirty Dancing."

Last month, walking along Lake Washington, Mr. Ballmer bumped into Seattle Seahawks coach Pete Carroll, who was fired from earlier jobs and now is thriving. Mr. Carroll says he told his neighbor he went through "something like this" and predicted it is "going to be great."

Mr. Ballmer says he is weighing casual offers as varied as university teaching and coaching his youngest son's high-school basketball team. He plans no big decisions for at least six months—except that he won't run another big company. He says he's open to remaining a Microsoft director.

At a recent executive meeting, he perched on a stool to review developments. His third slide was labeled "New CEO."

"Not a soul in this room doesn't think we need to go through this transition," he said. As he stood up, his voice started to crack: "As much as I wish I could stay your CEO, I still own a big chunk of Microsoft, and I'm going to keep it."

He walked back toward the stool, then turned around and said in a near-whisper: "Please take good care of Microsoft."

—Shira Ovide and Joann S. Lublin contributed to this article.

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