



[Cisco Blogs](#) / [Developer](#) / Reflecting on Marc Andreessen's 'Software is Eating the World'

August 20, 2021 [1 Comment](#)



[Developer](#)

# Reflecting on Marc Andreessen's 'Software is Eating the World'

[Grace Francisco](#)

Ten years ago today, August 20, 2011, Marc Andreessen, the co-founder of Netscape and an influential investor, published a pivotal story in the Wall Street Journal: [Why Software is Eating the World](#) (also [reprinted](#) on his venture capital firm's Web site). It was a stake in the ground and a rallying cry. I've never forgotten that story and the impact it had on me.

When Marc's story appeared, I was working at Microsoft, in developer relations. When I started in that role, seven years prior, few companies had equivalent jobs. The demand for that work grew slowly, but Marc's story in 2011 really helped accelerate the influence of the developer in all kinds of businesses. Today, many reports cite the growing influence of software developers. And as we know, nearly all businesses today rely on software. It's *Revenge of the Nerds* for real: The coders are running the show.

So I have Marc to thank, to a large degree, for the wealth of experiences I've had in this field in the last decade. I think about Marc's story frequently given my charter here at Cisco, which is to foster a healthy and engaged community of the engineers who are building programmable infrastructure – and to build bridges to new developer communities creating solutions for a cloud-first world.

## When the Banks Opened

シスコの Web サイトを引き続き使用することにより、クッキーの使用に同意したものと見なされます。プライバシーポリシー | 設定変更

(fintech) company, our  
n data from financial  
ent or personal financial  
ndly standards that  
g" to deliver our

service: our tech would log in to a financial company's website, simulate a user (meaning we needed users' login credentials) and then literally read the HTML code to extract the data from human-readable Web pages.

Our secret sauce was our screen scraper army: a team of people who constantly monitored the designs of bank site Web pages and reacted to issues the scraper processes ran into with website changes. They had to regularly update our parsing code to make sure we got machine-readable data from online services that were designed for humans, not machines. Every time a bank tweaked the design of a web page, altering its HTML, they had to scramble to update our scraper agents.

But then, software started to eat the banks. Open Banking became a hot topic. Banks had to align with the emerging standard and improve the ease of financial data transfer. They had APIs written. Who'd have thought? I was both stunned and delighted when these tradition-bound institutions began using modern concepts to open up access to their business avenues. And I realized that if the banks could become software companies, anything could.

Thank goodness for Open Banking – and for every push, pull, and effort that has made it possible for developers to connect businesses together with software. In the last 18 months, API publishing has made so much possible to ease the pain of the pandemic – things like virtual doctor visits and online education, food delivery during lockdown, and streaming news and entertainment. As Marc Andreessen wrote this year, software “[saved the world](#).”

## Networking: Always Software-First

On the tenth anniversary of Marc Andreessen's story, I was wondering: How did the people who came to Cisco before me relate to the idea of software eating their business? So I asked around and confirmed that we've been supporting this digital transformation for quite a long time.

Ravi Chandra, Senior Vice President of Engineering, whose first job at Cisco was in 1993, says that “networking has always been software driven.” However, he says, “a real change happened about a decade ago, when Andreessen predicted that software would eat the world: The network was becoming too complicated for humans to manage... just as internet shopping took off and software began eating retail.”

Ravi continues, “That's when we knew we needed a software-defined architecture. We've been creating it ever since. The design of our hardware is influenced by what we need software controls for. And we use all the data and telemetry captured by the network to make informed decisions to increase networking performance, reliability, and security.”

Ish Limkakeng, Senior Vice President and General Manager of Cloud Networking, tells me about SDN (Software Defined Networking) controller. He reflects on Andreessen's story. He changed “everything we were able to do from a central hardware box.”

シスコの Web サイトを引き続き使用することにより、クッキーの使用に同意したものと見なされます。プライバシーポリシー | 設定変更

Ish's team today is focused on cloud networking – specifically on bringing Cisco's assets together into a fabric that customers can use as a platform for their businesses.

And then I connected with Linda Tong, General Manager of [AppDynamics](#), our platform for application performance monitoring. She says that AppDynamics was always a pure software business, designed to help its customers succeed in their own digital transformations.

It's these mindsets that helped me understand how Cisco got to be one of the largest software companies in the world. As Ravi says, we don't make software today to control our networking hardware. Instead, we make networking hardware to run the software our customers need for their networks. Software ate networking a long time ago.

## We are What we Eat

Marc Andreessen was right in 2011. Software ate the world. Today, tools and training are available to help everyone make almost everything into code, from brick-and-mortar banks to the programmable network. We are the chefs, and the dishes we are creating today are more interesting than ever.

To see the resources Cisco has for developers today, [check out Cisco DevNet](#).

*We'd love to hear what you think. Ask a question or leave a comment below.  
And stay connected with Cisco DevNet on social!*

[Twitter @CiscoDevNet](#) | [Facebook](#) | [LinkedIn](#)

Visit the new [Developer Video Channel](#)

Share



シスコの Web サイトを引き続き使用することにより、クッキーの使用に同意したものと見なされます。プライバシーポリシー | 設定変更



Share:



シスコの Web サイトを引き続き使用することにより、クッキーの使用に同意したものと見なされます。プライバシーポリシー | 設定変更