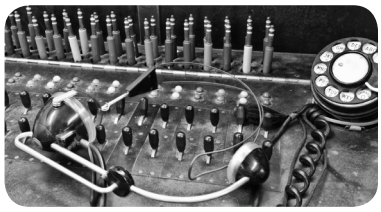
How AT&T is moving to a Software Defined Network (SDN)

The telecom industry used to spend years developing switches, routers and other physical gear to run our network. Today that model is unsustainable.

- Telecom operators traditionally relied on a "bottom-up" network build model, using expensive, specialized, single-purpose hardware.
- That model worked in a world where the majority of traffic was voice, which grew slowly and predictably.



- But today, apps (and even entire industries) can spring up almost overnight, quickly creating new sources of network traffic.
- Other online companies address this with a "top-down" model. This means that they use software to provide functionality and scalability on inexpensive and replaceable hardware.
- At AT&T, we're adopting that same approach for our network.
- *We're becoming a software company.*

The technology we're using in this transformation is complex, but the concept is simple and familiar to any smartphone user. It's like moving from devices to apps.

- We're doing at the network level what smartphone users have been doing on a personal level for the last several years - we're turning devices into software, cloud-based apps.
  - All of the physical, specialized gadgets that used to weigh you down (CD player, video game console, video camera, tape recorder, fitness tracker, alarm clock, etc.) are now mobile apps on your phone or tablet.
  - Moving the functions of those individual devices into software running on a standard hardware device saves time, money and physical space. You have all these apps on one device, with you wherever you go.
  - Upgrades happen with a single tap and download rather than buying a new device when new features become available.
- When those apps are in the cloud, you can access them when and where you want.

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