WASHINGTON -- With Democrats in charge in Washington, supporters of so-called "net neutrality" rules seem poised to finally push through requirements that high-speed Internet providers give equal treatment to all data flowing over their networks.

These rules - at the heart of a five-year policy debate - are intended to guarantee that Internet users can go to any Web site and access any online service they want. Phone and cable companies, for instance, wouldn't be able to block subscribers from using cheaper Internet calling services or accessing online video sites that compete with their core businesses.

Yet making that happen is proving thorny - and it's likely that the courts and perhaps even Congress will ultimately get involved.

The Federal Communications Commission is set to vote Thursday on a proposal by the agency's chairman, Julius Genachowski, to begin crafting regulations to prohibit broadband providers from favoring or discriminating against Internet traffic.

Although Genachowski has the support of the other two Democrats on the five-member commission, his proposal has run into strong opposition from the large phone, cable and wireless companies that provide the bulk of U.S. high-speed Internet connections.

Broadband providers such as AT&T Inc., Verizon Communications Inc. and Comcast Corp., argue that after pouring billions of dollars into their networks, they should be able to operate those networks as they see fit. That includes offering premium services over their lines to differentiate themselves from competitors and earn a healthy return on their investments.

Genachowski's proposal has also encountered misgivings among Republicans on the FCC and in Congress, who fear network neutrality rules could discourage broadband providers from continuing to expand and upgrade their systems.

"The risk of regulation really inhibits investment," said Republican Commissioner Robert McDowell. Noting the agency's estimated price tag of up to $350 billion to bring broadband connections to all Americans, he added: "How do we pay for all that?"

One thing everyone agrees on is that the FCC will have to sort through some tricky issues as
Genachowski's plan moves forward.

One question is how much flexibility broadband providers should have to keep their networks running smoothly by ensuring that high-bandwidth applications such as YouTube videos don't hog too much capacity and impede other traffic like e-mail and online searches. In other words, when does legitimate network management cross the line to become discrimination?

Lawrence Spiwak, president of the Phoenix Center for Advanced Legal & Economic Policy Studies, a think tank that promotes free-market approaches, fears the FCC could hurt small, rural carriers that face higher costs to build out their systems. Without the ability to manage traffic, he said, these companies could be forced to make expensive network upgrades they cannot afford.

The FCC also needs to sort out how the rules would apply to wireless systems, which have less bandwidth capacity than wire-based networks and might have greater need for traffic management. AT&T, the exclusive U.S. carrier for Apple Inc.'s iPhone, already is running into capacity challenges given the popularity of the gadget and its scores of bandwidth-consuming applications.

"There could be unintended consequences of applying net neutrality to wireless," said Christopher Guttman-McCabe, vice president of regulatory affairs for CTIA-The Wireless Association, an industry trade group.

Genachowski's plan calls for the agency to formally adopt four broadband principles that have guided the FCC's enforcement of communications laws on a case-by-case basis. Those principles state that network operators must allow subscribers to access all online content, applications, services and devices as long as they are legal.

The FCC relied on those guidelines last year when it ordered Comcast to stop blocking subscribers from using an online file-sharing service called BitTorrent, which is used to transfer large files such as online video. Comcast is challenging the FCC ruling in court.

Genachowski also wants the FCC to adopt two more principles. One would make it clear that broadband providers couldn't discriminate against particular content or applications, either by blocking them completely or by letting other traffic jump ahead in the queue. The other would require providers to disclose network management practices.

He is also seeking to extend all six principles to wireless systems, which have been largely unregulated.

Thursday's vote will launch a proceeding to draft rules based on those principles and open them to public comment. The agency would likely adopt formal regulations by next summer.

Supporters of net neutrality regulations want to prevent broadband companies from becoming online gatekeepers by abusing their control over Internet networks. They warn that a startup like YouTube or Facebook might never have a shot if broadband providers can prioritize their own online services or those of business partners.

"If bandwidth is disproportionately consumed by those who can pay, it would destroy the Internet as a level playing field," said Ben Scott, policy director for the public interest group Free Press.

Colin Crowell, a senior counselor to Genachowski, described regulations as "sensible rules of the
road to preserve a free and open Internet, which has been an economic and innovation engine for the nation."

But the service providers, along with many Republicans and even some Democrats in Congress, say the FCC chairman has not shown a need for more regulation given the few known examples of discrimination.

Besides Comcast's actions last year, the other major incident occurred in 2005, when a small telecom company in North Carolina blocked subscribers from accessing Vonage Holding Corp.'s Internet phone service. The company reversed course after the FCC stepped in.

"The FCC has a responsibility to prove a market failure before intervening in the market," said Rep. Cliff Stearns of Florida, the top Republican on the House subcommittee that oversees communications and technology. "I don't think they have proven that."

McDowell, the Republican commissioner, argues that antitrust laws - which aim to prevent companies from abusing their market power - already provide a clear framework to handle such incidents.

Meanwhile, looming over the entire FCC proceeding are questions of jurisdiction. In challenging the BitTorrent ruling, Comcast argued that based on the FCC's deregulation of Internet service in 2002 - a move the Supreme Court upheld three years later - the agency doesn't have authority to mandate nondiscrimination rules.

A decision in the Comcast case is expected next year and if the court rules in the company's favor, it could undermine the net neutrality proceeding at the FCC - forcing the agency to reverse course on deregulation or drawing Congress into the debate.

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