France's government pressed Thursday to legalize broad surveillance of terrorism suspects with a measure that would allow intelligence services to vacuum up metadata in hopes of preventing imminent attacks.

The measure prompted outcry from some privacy advocates, human rights groups and the Paris bar association, despite the government's efforts to distance itself from U.S.-style mass surveillance in updating a law left essentially untouched since 1991.

In the United States, Internet and communications companies are pushing to encrypt traffic and keep metadata private. Government officials are resisting, seeking "back door" means for guaranteed access. France's measure appears to be demanding similar access, putting the companies under intense pressure on both sides of the Atlantic.

"Vague laws are really problematic when it comes to this sort of surveillance practice, especially when it comes to weak or nonexistent oversight," said Joshua Franco, who analyzes technology law for Amnesty International.

The measure presented Thursday was proposed long before the deadly Paris attacks by Islamic extremists earlier this year, but the government says it takes on added urgency with each person who is radicalized and turns against France.

It would force communications firms to allow intelligence services to install electronic "lock-boxes" to record metadata, which would then be subject to algorithmic analysis for potentially suspicious behavior. The metadata would be anonymous, but intelligence agents could follow-up with a request to an independent nine-person panel for deeper surveillance.

Either the panel or people who believe they are unfairly under surveillance—how they would know is unclear—could appeal to administrative judges. The timeframe for data storage was murky and likely to be fiercely contested in parliament.

Interior Minister Bernard Cazeneuve went to San Francisco last month to discuss the measure with Internet giants including Google, Facebook and Twitter. A French official who was not authorized to speak about the talks said he expected "a power struggle" with the companies in coming months.

French lawmakers start debating the bill in April.

French Prime Minister Manuel Valls said the data gathering would be restricted under the law, that its execution will be monitored by the independent panel, and—in the case of metadata—would not include personal information.

"These are legal tools, but not tools of exception, nor of generalized surveillance of citizens," Valls said in a news conference following a Cabinet meeting.

The prime minister stressed that only half of French citizens who left for Syria were flagged beforehand. "Facing increasing jihadist threats, we must strengthen the effectiveness of the surveillance of terrorists," he said.

The bill also aims to give French intelligence services a legal framework for using high-tech tools—already in operation—such as location trackers for cars or devices that intercept nearby mobile phones. The country's previous surveillance law was passed in 1991, before mobile phones and the Internet, Valls recalled.

But Sophie in 't Veld, a Dutch member of the European Parliament, said a general push throughout the 28-nation European Union to expand the authority to collect and stockpile citizens' data hands too much power to police and
"We are destroying all the legal safeguards, and by doing that, we are not only destroying the privacy and freedom of our citizens but destroying the fabric of our societies themselves," In 't Veld said.

French officials said Internet companies such as Facebook and Google already keep—and analyze—far more information about their customers than the government is proposing.

In 't Veld also questioned the effectiveness of vacuuming up mass quantities of data. In 2011, she said, the European Parliament passed a resolution she had drafted calling on member states and the EU's executive arm to evaluate the effectiveness of counter-terrorism tools. Since then, she said, the agencies concerned have never been able to show the benefits of data collection.