



Figure 1: Storage Contract State Diagram

Transition	Actor	Description
$t_0$	Client	Creates a new contract. Specifies amount, guarantee, provider, deadline. Sets up a server to serve the file.
$t_1$	Client	Cancels the contract before the provider activates it.
$t_2$	Provider	Receives the file. Proves he owns it and activates the contract. Also, has to send the required guarantee.
$t_3$	Client	Requests from the provider to prove (on-chain) that he still owns the file.
$t_4$	Provider	Proves (on-chain) that he still owns the file.
$t_5$	Client	The provider failed to prove that he owns the file (in a given time period). Therefore the client can invalidate the contract (receiving the guarantee).
$t_6$	Client	The provider failed to prove that he owns the file after the contract deadline. Therefore the client can invalidate the contract (receiving the guarantee).
$t_7$	Provider	Proves that he still owns the file, during a transition period specified in the contract after the deadline. Receives payment.