In a previous paper we introduced C*-algebras over semifields which are simultaneously Banach-Kantorovich spaces over complex regular universal semifields, and complex *-algebras with natural axioms similar to the axioms of C*-algebras, making those object to be a natural generalization of the category of C*-algebras within the category of Banach modules over semifields. It has been as well established there that a continuous field of C*-algebras over Stonean compact of the semifield canonically determines a C*-algebra over a semifield. In the present sequel we show that each C*-algebra over semifield can be naturally decomposed into a continuous field of C*-algebras over the Stonean compact of the semifield. (Received July 01, 2009)