On algebras of a topological algebra valued bounded continuous functions

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In this talk we speak about the algebra $C_b(X, A)$ of all bounded continuous functions on a completely regular Hausdorff space X with values in a locally convex algebra A with a unit e. We show that if A is an m- convex Q-algebra (i.e. the set $G(A)$ of the invertible elements is open), it is a Q-algebra under a stronger topology; or it is advertibly complete, etc., then the algebra $C_b(X, A)$ is of the same type. We prove also that there exists an homomorphism $f \rightarrow \widetilde{f}$ between $C_b(X, A)$ and the algebra $C_b(X \times \mathfrak{M}(A))$ of all bounded complex continuous functions on $X \times \mathfrak{M}(A)$ given by an alternative *Gelfand transform,* where $\mathfrak{M}(A)$ is the space of maximal ideals of A.

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