ABSTRACT. We give a new construction of Lie groupoids which is particularly well adapted to the generalization of holonomy groupoids to singular foliations. Given a family of local Lie groupoids on open sets of a smooth manifold M, satisfying some hypothesis, we construct a Lie groupoid which contains the whole family. This construction involves a new way of considering (local) Morita equivalences, not only as equivalence relations but also as generalized isomorphisms. In particular we prove that almost injective Lie algebroids are integrable.