Abstract: The scope of interest of this work is to study the gravitational collapse of magnetized matter. We consider homogeneous, isotropic and ideally conducting star threaded by the test magnetic field. This field is chosen to be a relativistic generalization of dipole field outside the star and homogeneous field under the stellar surface. Dynamics of the collapse is described by Oppenheimer-Snyder solution so we consider the framework in which the motion of stellar matter remains unaffected by the magnetic field. In Schwarzschild’s coordinates we review the exact solution of Maxwell’s equations for electric and magnetic field inside the star and find the evolution equations for both fields outside the star that have to be treated numerically. Then we introduce Novikov coordinates and find the respective fields evolution equations. We test the equations using known exact solution for time-dependent magnetic dipole. Finally, we adopt chosen coordinates to become singularity-avoiding and integrate the respective differential equations numerically.