Charged Conductor at Equilibrium (2)

- Now place a point charge q near the charged conductor.
- The electric field produced by q causes a further rearrangement of mobile surface charges until we have again $\vec{E} = 0$ in the interior.
- Locally, the electric field $\vec{E}$ is perpendicular to the surface of the conductor, and its magnitude is proportional to the charge per unit area: $E = \sigma/\epsilon_0$.