In this talk we discuss electrostatic stability of charged virus-like nano-shells and charged nano-droplets especially in the presence of mobile mulivalent ions. Multivalent ions are known for intriguing properties such as strong electrostatic correlations that they can engender in charged soft matter with examples ranging from ion-induced condensation of DNA to attraction of like-charged surfaces in ionic fluids. By employing extensive Monte-Carlo simulations we study the effects of multivalent ions in the specific example of charged, virus-like nano-shells and nano-droplets immersed in an asymmetric ionic fluid. The nano-shell/nano-droplet is assumed to be spherical and permeable to all ions. We show that the presence of even a very small amount of multivalent ions (of opposite charge to the fixed charges on the nano-shell/nano-droplet) can lead to strong attractive forces due primarily to electrostatic correlations on these spherical nano-objects. These attractive forces correspond to a large inward (osmotic) pressure that can stabilize the nano-shells/nano-droplets against their electrostatic self-repulsion. We discuss the effects of various system parameters such as the ion charge valency, nano-shell/nano-droplet's surface or volume charge density, etc., on the stability of the nano-shells/nano-droplets and map out general stability phase diagrams in terms of the key system parameters. We also discuss possible implications of our results for models of 'spherical' viruses that mainly comprise a charged nano-capsid and a negatively charged genetic content such as a highly packed DNA molecule.