Overlay management systems face the challenges of increased complexity and heterogeneity because of the many elements involved in providing overlay services. In dynamic networks, the challenge and complexity is increased. Service composition allows simple services to be dynamically combined into more complex services in order to provide new services. In this paper, we deal with the problem of composing multiple autonomic elements to achieve system wide goals. Using a self-organizing approach, autonomic entities are dynamically and seamlessly composed into service-specific overlay networks. The paper describes and discusses the details of the composition approach. Results of extensive simulation are presented.