This research study presents a solution to develop a predictive text entry method for Short Service Message on a Mobile Phone in Malay language. There are still many people using the traditional way to SMS (Short Message Service) which difficult and time consuming because user must press the key repeatedly in order to get correct word. As results, by developing a prediction tool algorithm will reduce the multiple key pressing for text messaging. However, studies were conducted to create the Malay Predictive Text Entry with Malay Language data structure with a cool T9 technology called MLPTET. The prediction tool changes the traditional to a modern technology in more memory intensive dictionary based predictive text. The availability predictive text entry in Malay language drives increased SMS usage for Malaysian. Users can SMS quickly and easily on ‘Single-Press’ key per letter. This approach was implemented to minimize the number of key presses and time in keying the text message. Generally, prediction has been categorized into two components namely a java based mobile client for the interface for front-end input and back-end of prediction tool with an Independent Based Dictionary for retrieving the Malay words. As a result, the tool accurately do the retrieval with the intended word in complete from the dictionary. The goal of this research study is to construct a predictive text entry tool in Malay language for Short Service Message on mobile phone system architectural design in Java platform. The implementation of these techniques, were then measured in terms of completion of word and accuracy. MLPTET was evaluated against resulted 82% of usability and 85% of accuracy. The evaluation results showed overall 70% of user satisfactions and acceptance.