



**DIAGRAMS
THAT JUST WORK
EVERYWHERE**

VISA utilizes mxGraph to automate network diagram deployment

Off the Shelf Solution

When VISA's network tools team was faced with the problem of automatically creating and distributing network diagrams, they first investigated the possibility of using a third-party diagramming library that would enable them to easily produce images of their network in a PHP backend. The simple goal was to make sure that all users, regardless of what browser version, could access the most current diagram at a click of a button. After evaluating a custom in-house solution, it was decided that mxGraph was the ideal solution. Because of Visa's rapid pace of network changes, time-to-market requirements and the growing costs of manually updating and producing diagrams, mxGraph's solution was chosen because it dramatically reduced both time and costs of keeping network diagrams up to date.

Works Anywhere

mxGraph is a JavaScript diagramming library that operates natively on any major browser and provides back-end functionality in Java, PHP and .NET. These back-ends communicate with the JavaScript loaded in the browser to enable vital features such as server persistence and diagram sharing. Within the browser, mxGraph provides various complex editing functionality, both behaviorally and visually. In this case, mxGraph was needed to provide highlighting and linking within the web pages on the browser side and production of PDF copies of the diagram from a PHP back-end.



Market Advantage

One of the key ways in which mxGraph saves time and money is the provision of a consistent API over any major browser. Currently, browsers vary widely in their standards compliance, their display functionality consistency and their vector graphics languages used. In the creation of mxGraph, several man years of research have gone into providing all the commonly required diagramming features with complete consistency, smoothing over all of the rough edges in browsers implementation. This is often cited as the primary advantage of using mxGraph, the time saved by avoiding having to repeat this complex research.

Partnership Support

VISA not only used the mxGraph library in their implementation, but also utilised consulting services from JGraph Ltd to perform the customizations required. In three separate projects JGraph developers were engaged to create an exact specification of the work to be completed and in each case completed the work to requirements within the allocated timeframe. The end result met the niche project feature set perfectly and demonstrated the ability of mxGraph to be flexible and extensible to a wide range of customisation, including custom edge routing, complex node labelling functionality and automatic layouting of the display.