

Mobile Middleware – What is it?

Before you mobilise business applications, you should understand what mobile middleware is, and why it is fundamental to deploying mobility solutions for your business.

Mobile Middleware

Middleware is a term that arose in the 90's and was named 'middleware' as it constituted the middle ground between traditional business computing environments and later extended to the Internet. Middleware gained momentum as applications (most notably graphical web applications) sought to communicate with one or more complex business systems (eg ordering, despatch).

In simpler terms, users filled out online forms in their browser and that information had to be processed as a transaction in a business system. The answer to this dilemma was Middleware.

Today, Middleware is also the answer for mobilising business applications. The issue we face now is the emergence of wireless and 'casually connected' devices.

Mobile Middleware Features

Mobile Middleware products should present a number of features to accommodate business grade applications.

Network Detection and Switching. This is the capability to detect communications characteristics and/or limitations, and optimise the wireless communications accordingly. Additionally the Mobile Middleware platform should be able to transparently switch between available networks without user intervention or data loss.

Guaranteed Delivery. Wireless and mobile devices tend to be 'casually connected'. Communications can be interrupted or unavailable for periods of time. Due to this, Mobile Middleware must locally store or buffer information. It also means that the receiving server should be able to verify receipt of the data from the sending device.

Device Management. The nature of mobility solutions implies that devices will regularly be geographically remote from the corporate office. The inherent complexities involved with integrating the wireless infrastructure with the 'wired' infrastructure, defines the importance of appropriate tools for management, software updates and general support and troubleshooting.

Security. The increasing use of wireless technologies means that security is a critical issue for mobility solutions. Security has been a core focus for most corporates and this now needs to extend to mobile applications and devices. Ideally, the Mobile Middleware platform will provide inbuilt security but also support other technologies and products.

Data Translation. Translation is required to translate data formats from different business applications so they may communicate with each other. The translation of data should support 'open standards' so the mobile solution is not proprietary or vendor specific.

Data Optimisation. Given that wireless communications is often charged by quantity (data sent and received), it is important that data is compressed to minimise what is sent and received. Equally as important is the impact on performance given that wireless networks are generally limited in speed.

To discuss this Opinion Paper or InterDev's Xmotion Mobile Middleware, contact InterDev.

InterDev Pty Ltd
Suite 7 24 Lakeside Drive
Tally Ho Technology Park
Burwood East, Victoria 3151
P +613 9886 8736
www.interdev.com.au