

Mobile Content on the IMS Network

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- IMS provides several services that can be leveraged in M Learning applications
- These Services include new ways to perform activities on mobile devices (Converged User Sessions)...
- ...new ways to deliver course material and monitor student participation (IP Based Content Delivery)...
- And new ways to help maintain the student's focus during M Learning Activities (Presence and Group Management)

What is IMS?

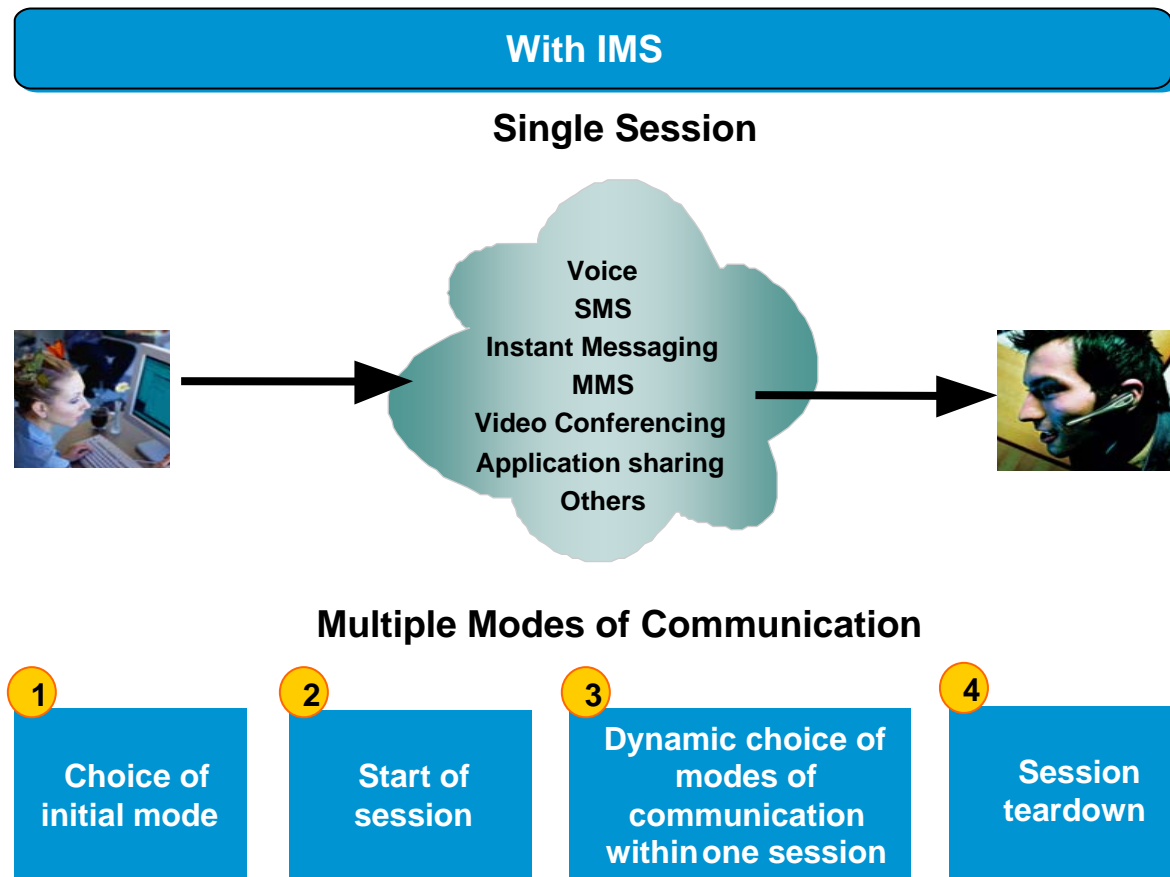
- IMS stands for the IP Multimedia Subsystem
- IMS uses the Internet Protocol to handle all its signalling and content delivery, instead of the traditional methods used in Mobile Networks.
- As everything is IP based it opens up multiple ways of accessing services – over the Internet, via mobile devices or through set top boxes.
- Using IP also means that new services can be added in very quickly – there is no need to change any of the signalling to deliver the services

Converged User Sessions in IMS

- Within IMS User Sessions can consist of several distinct modes of communication at once.
- Examples of this include
 - Shared Browsing
 - Whiteboard
 - Voice Calls
 - Video Conference
 - File Sharing

Converged User Sessions in IMS

- IMS allows users to decide *how* they would like to communicate *during* a session, rather than just at the beginning or end



IP Based Content Delivery

- IMS allows any IP connected device to be used
 - Mobile Phone / PDA
 - Broadband Connected PC
 - Laptop Using WIFI
 - Set Top Box using Cable
- Different course materials can be delivered based on the type of device being used to maximise the capabilities available to the student
- IMS can be used to deliver any type of content to a device provided that the content can be transferred over IP

IP Based Content Delivery

- IP Connections mean that data can be transferred both ways:
- Updated course material, questionnaires or assignments can be delivered downstream to the students client device automatically.
- Answers to questions, assignments and progress reports can then be pushed back upstream to a centralised repository, allowing the teacher/administrators to monitor student progress

Presence and Group Management

- IMS allows users, or user's clients to set their availability to other users.
 - A user might set themselves up as available for SMS or email but unavailable for Voice and Video Calls.
- Groups can also be defined for a user's contacts
 - For example a user might define a Work, Social, Student and Unknown group.
- Combining the Presence Information With Groups allows users to be very specific about who may and may not contact them at any time

PGM for M Learning

- The advantages of PGM can be leveraged in M Learning applications to improve student focus:
 - While the M Learning application is started the student's presence is automatically set to unavailable for everyone outside of the "Student" group, stopping distracting calls from taking place.
- Even when a student is available to other contacts it may only be for certain types of session
 - During a M Learning Session, the students may only be contacted for M Learning sessions, not session types that don't need to be used – shared music, web browsing etc.