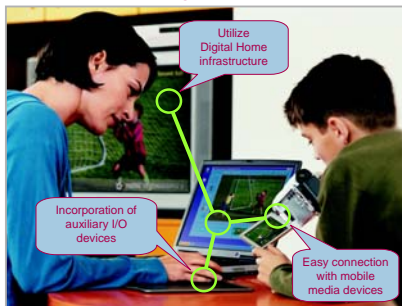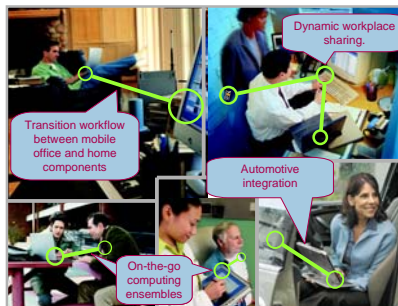# Dynamically Composable Computing User Experience

Dynamically Composable Computing allows mobile computer components to be dynamically configured to better suit the task at hand. The ubiquity of mobile personal computing devices in combination with the emerging Ultra-Wide Band standard will enable transparent composition of wireless components into a unified system.
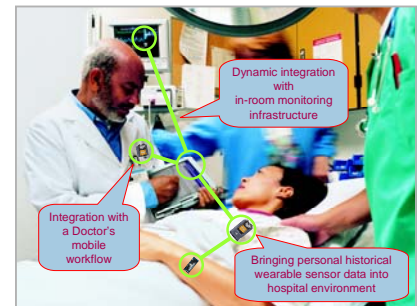
DCC Use Scenarios:

The Dynamic Digital Home

Utilize Digital Home infrastructure

Incorporation of auxiliary I/O devices

Easy connection with mobile media devices

The Dynamic Mobile Office

Dynamic workplace sharing.

Transition workflow between mobile office and home components

Automotive integration

On-the-go computing ensembles

The Dynamic Hospital

Dynamic integration with in-room monitoring infrastructure

Integration with a Doctor's mobile workflow

Bringing personal historical wearable sensor data into hospital environment
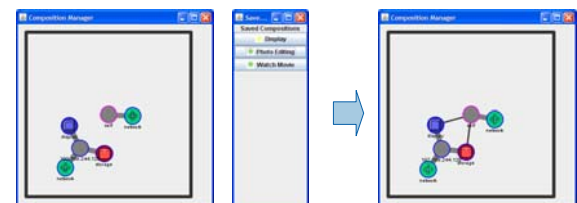

A primary goal of the system is to make compositions *easy to use*; we are exploring a number of different interaction techniques to enable seamless, intuitive and effective compositions
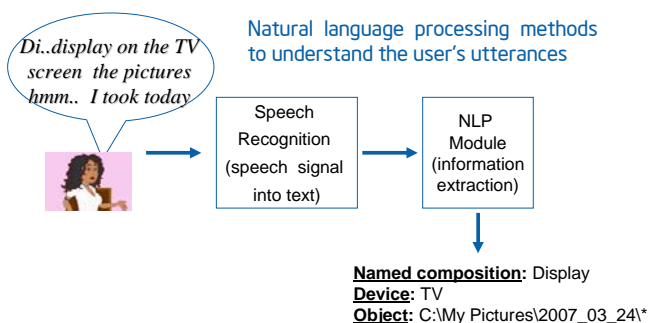

Graphical User Interface using a join-the-dots editor

| Devices and Services Before Composition | Named Compositions | Linked Services After Composition |

Prototype Composition Manager

Natural Language Processing for convenient interaction

Di..display on the TV screen the pictures hmm.. I took today

Natural language processing methods to understand the user's utterances

Speech Recognition (speech signal into text) → NLP Module (information extraction)

Named composition: Display
Device: TV
Object: C:\My Pictures\2007_03_24*

NFC for proximate connections

Use NFC to facilitate association and key exchange to form secure wireless links

'Touch and connect' paradigm

Team: Roy Want, Trevor Pering, Barbara Rosario, Shivani Sud and Alex Nguyen

Research at Intel
www.intel.com/research