

# Livespaces Introduction

# A Livespace Is

- A meeting space supported by technology
- Built on a room-wide operating system
- Integrates room devices and software
- Large or small
  - A whole room or simply a few laptops

# A Livespace Should

Make taking advantage of an advanced meeting space effortless...

...rather than battling a conglomeration of recalcitrant gadgets

# To Achieve Effortlessness

- We need to
  - Reduce cognitive overhead of using a smart room
  - Instil confidence in technology
  - We've failed as soon as anyone picks up pen and paper 😊

# Rapid Prototyping

- To support R&D into these aims, the environment needs to provide for rapid prototyping

# What Does A Livespace Look Like?

You're sitting in it

# Livespace Hardware

- Computers
  - Servers (shared displays, web)
  - Clients (laptops in front of you)
- Displays: projectors, whiteboards
- Switches: KVM, video, USB, network, ...
- *Lots of cables...*

# Livespace Software

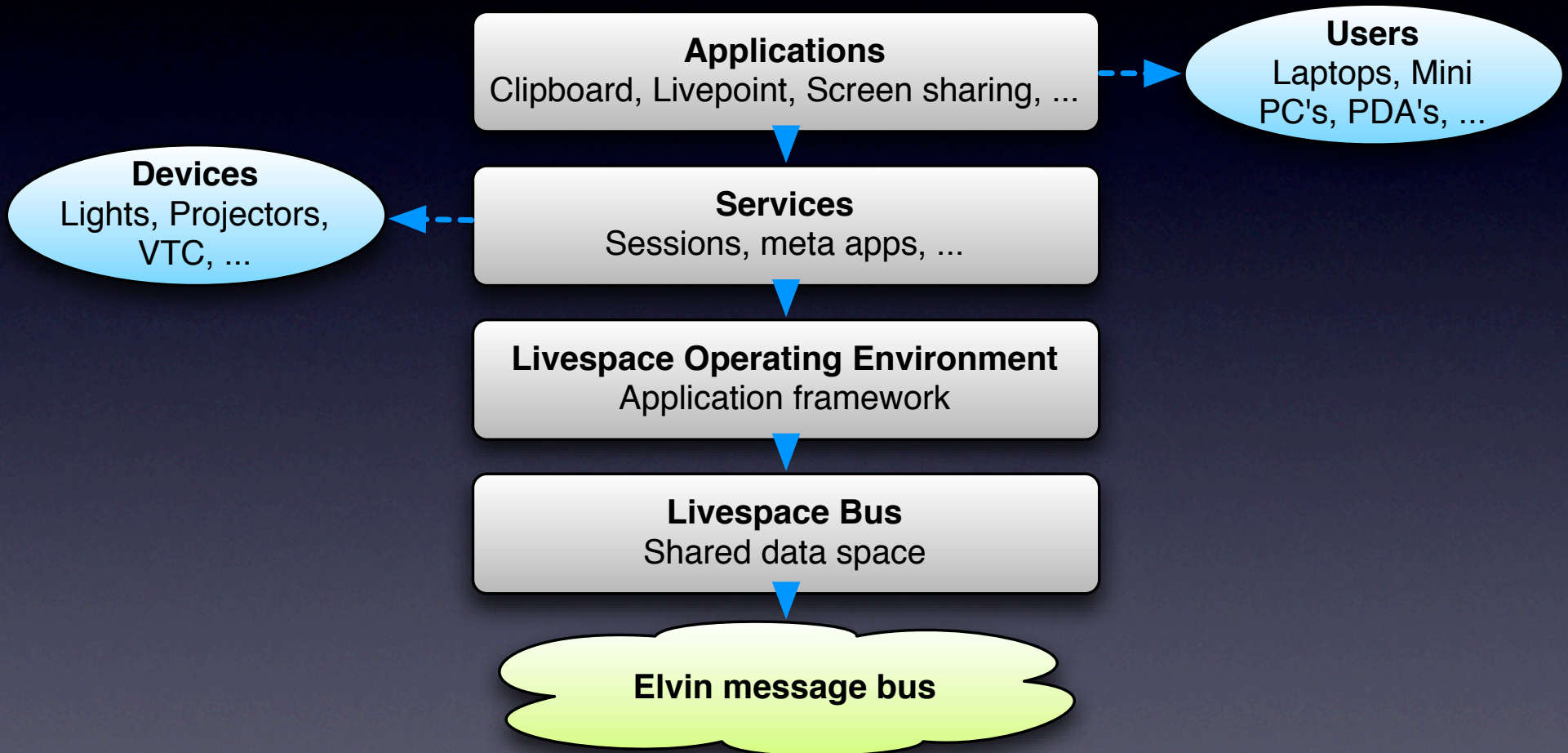
- A high level communication blurs separation between computers
- Component-based deployment
- Device controllers: lights, projectors, ...
- Room services (clipboard, sessions, ...)
- Groupware applications (e.g. TeamThink)
- Room control: meta-apps, sessions, Ignite



# Core Applications

- Clipboard – sharing text
- Screen sharing – remote viewing of desktops
- Livepoint – remote controlling desktops
- AccessGrid – VTC
- Meta applications/sessions – demo's, automated room setup
- TeamThink – group document editing
- Ignite – main room interface

# High Level Architecture



# Federation

- Livespaces can be federated together to allow cross-site collaboration
- May be ad-hoc or permanent

# Platforms

- Primary computing platform to support Defence: COTS hardware + Windows XP
- But anything supporting Java 5 will run 95% of the Livespace components
- Mostly built from open components – no licensing issues (except open source ones)
- Some support for platform-specific components on Mac OS X and Linux

# History Of Livespaces

- **2002** Initial research started at UniSA
  - MIT *meta-glue* for future smart teamspaces
- **2003** First Livespace environment established at UniSA.
  - Based on *iROS* (Stanford) & *ODSI/Elvin* (DSTC)
- **2004** DSTC SA established.
  - *Augmented Synchronised Planning Spaces* project: session interfaces research leads to *Ignite*.

# History

- **2005** DSTC Ausplans project complete. ICS developed at DSTO, Edinburgh Battlelab at DJFHQ Brisbane. Development of Livespace Operating Environment started.
- **2006** DSTO Livespace Operating Environment in place, remaining iROS/ODSI components retired. FOCAL enhanced with Livespaces capabilities. Livespaces becomes part of the Hxl Braccetto project.
- **2007** Coalition TeamNets established to support coalition experimentation. New Composable Collaboration Systems laboratory established.

# Roadmap

- Release 1.0 – March 2007
  - Stabilised current feature set, baselined API
- Release 1.1 – September 2007
  - UI improvements (Ignite, Livepoint)
- Release 2.0 – ??
  - Next generation room interfaces