

# UPnP Based OSGi Remote Execution Environment

**SAMSUNG**

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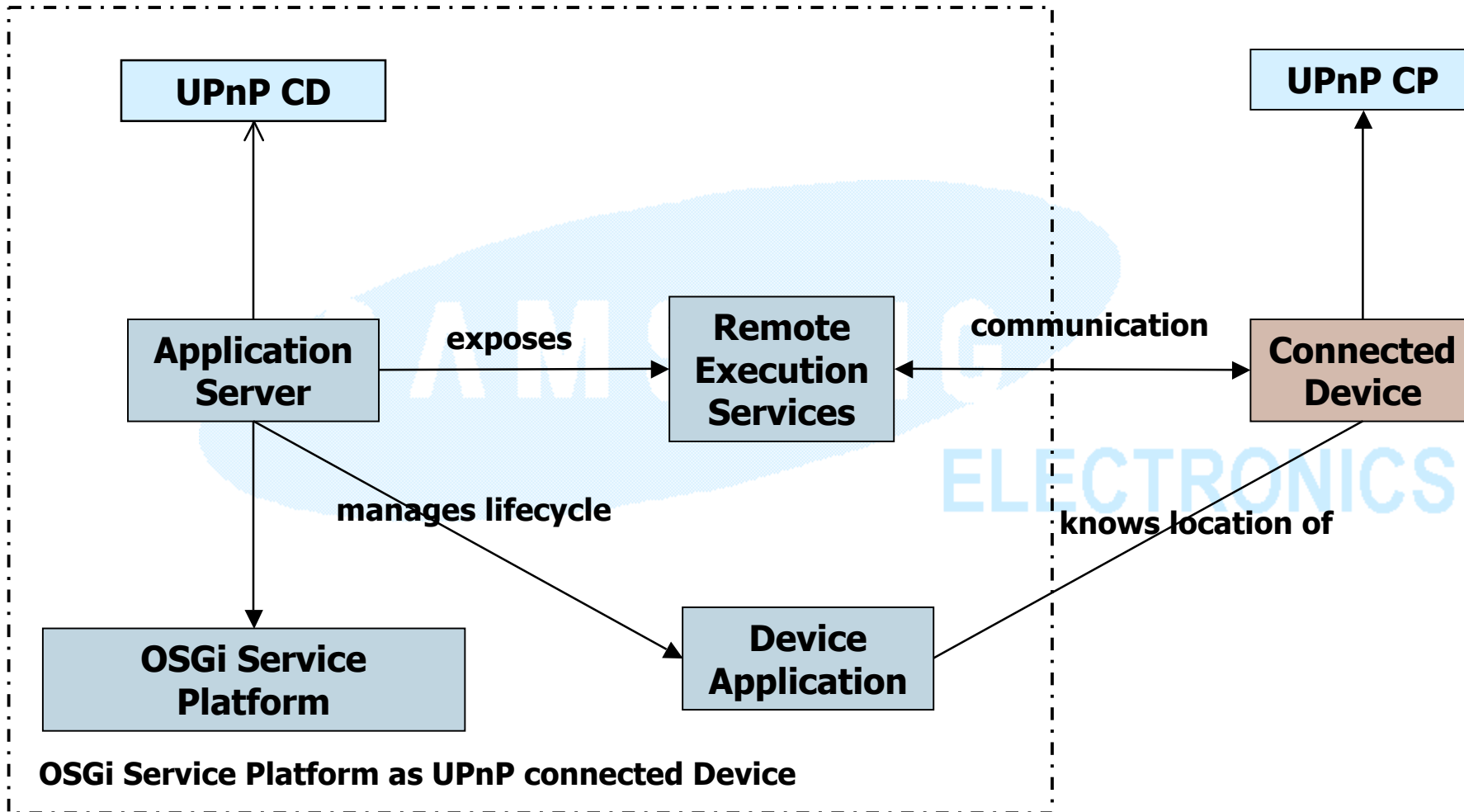
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- **Resource constrained Devices might want to process their bundles to support extra functionality**
- **Devices need to remotely manage lifecycle of their applications (from inside home or outside)**
- **A remote execution environment can offer standard service execution environment for limited devices**
- **Devices can be made future proof by using OSGi service platform**

- **Presence of OSGi Platform in the Network (Announcement)**
- **Publishing OSGi capabilities**
  - ✓ Available services
  - ✓ Exported Packages
  - ✓ System Policies
  - ✓ Bundle Information
- **Bundle Lifecycle Management**
  - ✓ Installation of bundles
  - ✓ Start/Stop of bundles
  - ✓ Updating of bundles
  - ✓ Uninstallation of bundles
- **Exchange Execution Result**

- **Built on Internet standards and technologies such as TCP/IP, HTTP, XML**
- **Provides Automatic discovery and device control**
- **Widely accepted technology in current home networking domain (DLNA, IGRS etc.)**
- **UPnP is already included in the existing OSGi specification**
- **Alignment with UPnP is a request from Service Operator**

# UPnP Based OSGi Remote Execution Service



➤ **Security issues**

- ✓ **Prevention of malicious device/device applications from accessing OSGi platform**
- ✓ **Authentication and authorization of devices (and application) needs to be done**
- ✓ **Make use of the system policy to limit access to OSGi platform**

➤ **Alignment to Remote management from outside home**