



a3S SDK

Introduction

The a3S (Anything as a Service) Multimedia Cloud System is a development kit, in particular an SDK (Software Development Kit), which allows you to create your own cloud applications. By using a3S it becomes possible to provide various types of cloud service by taking advantage of the video/audio streaming technology and the large-capacity data transmission/reception technology that uses the high-speed data transmission system.

The development of a cloud system using our cutting edge architecture.

a3S is FORUM8's in-house developed multimedia cloud technology that allows high quality video and audio to be supported and streamed between the server and client application, as well as the high-speed transmission of large-capacity data.

This SDK allows you to use the various functions that a3S has to offer to develop a cloud computing application capable of providing all types of services on-line.

Supported Platforms : Windows (Android, Linux, iOS will be supported in the next version.)

Development Language : C/C++, Delphi™

Supports both public cloud and private cloud.

Cloud services like those listed below can be created by using the a3S multimedia cloud system without any prior knowledge of network protocol or streaming technology

- Cloud based data sharing systems and large-capacity data transmission services
- Video hosting and video on-demand services
- Chat features, bulletin boards and message services
- Cloud based gaming services
- Developing a cloud version of an existing application

Core modules of a a3S multimedia cloud system.

a3S is composed of the following modules with the functions required to offer cloud services.

a3S Protocol : Connects the core parts controlling TCP protocols, the server and each and every client. It also controls commands, and manages the synchronization and authorization system

a3S Multimedia : Encodes and decodes the videos via the latest video compression techniques and enables audio streaming without occupying too much CPU

a3S Data : Data management system which allows transmission of up to 4 GB of data at one time

Examples of creating a system using a3S

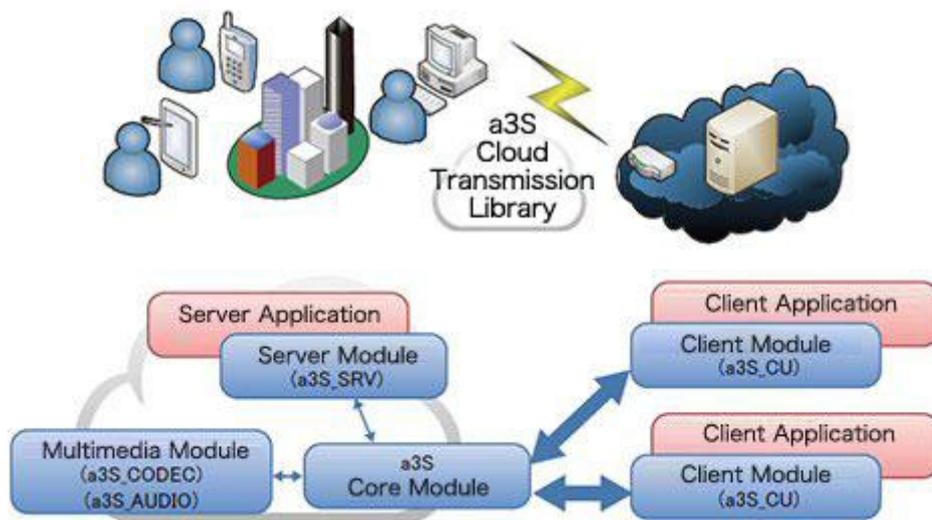
VR-Cloud®, one of FORUM8's premier products, was developed using a3S technology. This software has the ability to enable high-quality real-time images and sound, such as that of moving vehicles, to be sent from a server running the Interactive 3D VR Simulation software UC-win/Road, to client machines so that they can share and interact with the 3D VR environment.

An individual client's key strokes, mouse events, and GPS coordinates, as well as images captured by a camera are sent to the server and they are reflected in UC-win/Road's 3D environment running on the server. The updated content can then be shared among many other clients.

VR-Cloud® SDK

The following list indicates what can be achieved by using the scripting language (AngelScript) and a commercial text editor, importing the program into the system via the VR-Cloud® script plug-in. The script language is very similar in structure to C/C++.

- Customizing the user interface of the VR-Cloud® client such as adding new menus and buttons
- Developing many different GUIs each one specific for different content to be published on-line
- Assigning various different kinds of commands such as those used to change the camera (viewpoint) position and the environment, as well as commands used to initiate driving



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