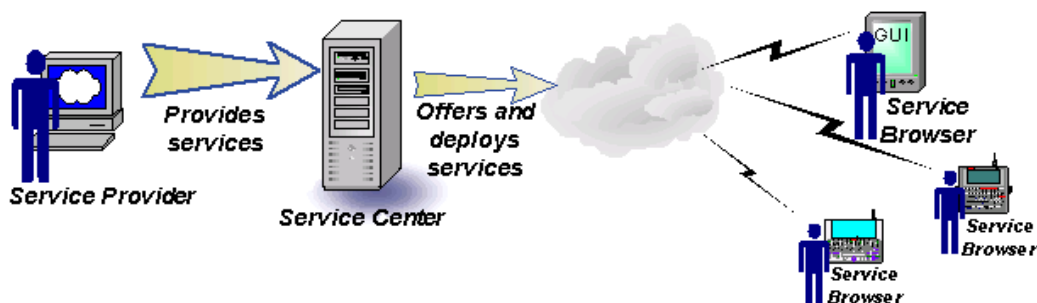


ESPA - Innovative Service Provisioning To Mobile Devices

ProSyst's Environment for Service Provisioning and Activation (ESPA) supports operators, service and content providers in creating new business

The mobile device market has very much developed over the past five years and resulted in a highly competitive market with increasing requirements. Service and content providers start to offer new and attractive services, that constantly grow in volume and content variety. However, the remaining question, how to safely deliver, install and activate those services, is an important factor of the business model. The answer to this question does not only help to save time in providing consumers with ease-of-use products but also support operators and providers in their efforts to foster their customer relationships, reduce customer churn and increase ROI. Accordingly, ProSyst Software AG (www.prosyst.com) has designed ESPA, the "Environment for Service Provisioning and Activation".

ESPA consists of a "Service Provider Center", located at the Operator's back-end, and a "Service Browser", the corresponding client software that is located in each mobile device. Using the Service Browser, consumers are just a click away from the service subscription without a deeper knowledge of the underlying technology. Instead, operators and service providers are in a position to easily organize the offered services, set subscription terms for each service, and securely collect the service fee via the Internet.



Environment for Service Provisioning and Activation

The **Service Browser** is a small client-side application that provides the mobile users with a broad variety of options for service delivery and management via an easy-to-use and simple visual interface.

Starting the Service Browser it automatically connects to the Service Center, so that users can manage installed services or subscribe to new ones. The services can contain a wide variety of functionalities with graphics, such as games, organizers, stock information etc., or without graphics, including system monitoring, mP3 songs, etc. .



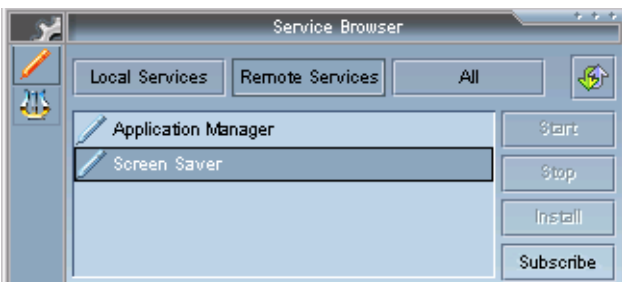
MP3 Player services running into the Service Browser

In addition, the Service Browser offers a very efficient use of the limited system resources. To save some resources the users can easily uninstall services, but re-download them from the Service Center at any time as long as their subscription is active. By simply stopping services memory resources can be saved. At the same time, the Service Browser enables the user to locally store installed services so that they can be used without persistent connection to the Service Center.



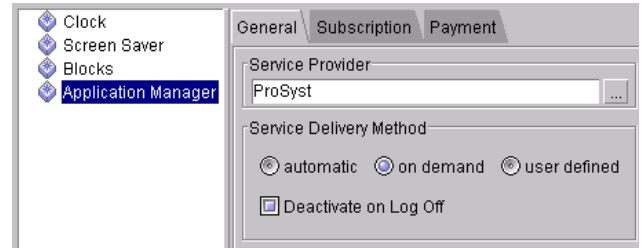
Saving resources: installing services on demand

In order to facilitate the usage of new services, the Service Browser automatically connects to the Service Center, checks the available but unsubscribed services and displays them as Remote Services available for purchase.



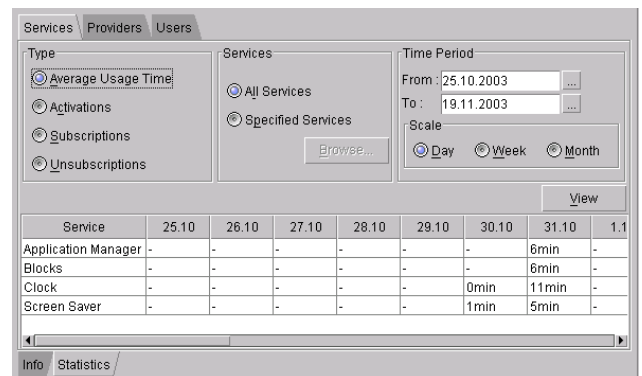
Subscription for remote services is just a click-away

The **Service Center** enables service and content providers to easily perform various service management operations via a convenient visual interface. Service and content providers can create and organize, add or remove services and manage the charging terms. Operators and providers also have the ability to maintain the services and their configurations on the Service Browsers.



Service management at the Service Center

The Service Center software is a robust platform for remote management that goes beyond the basic service offering and provisioning functionalities. It enables operators and providers to remotely monitor and maintain devices connected to the server, and to keep an overview of user privileges and subscriptions. The operator or provider can also track user activity and generate various statistics for service usage.



Statistics for service usage

Below, you will find a short overview of the technical details and features of ESPA.

Service Browser Features:

- Intuitive and customizable visual interface, which uses the ProSyst mGUI library – a highly optimized library for resource-limited devices.
- Click-and-run services, which do not require any technical knowledge about their installation and activation from the consumers.
- Facilitates the use of services without knowing the underlying technology such as

communication and transportation details, service activation or the arrangement of the secure online payment.

- Can be used on devices with touch screens, including PDAs or telematic terminals.
- Can provide a wide range of services, such as MP3 players and songs, local map, midlets, games, etc.

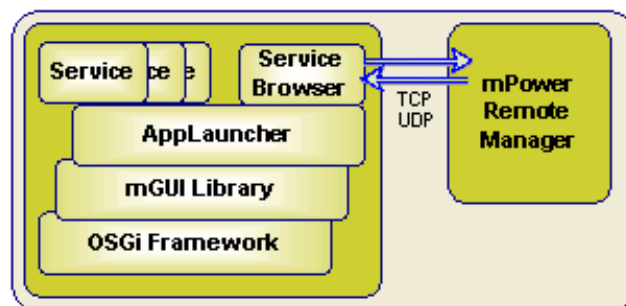
Service Center enables operators and providers to:

- Add, remove, and change the content of services.
- Track service usage and generate statistics.
- Set various subscription methods and different pricing models.
- Charge for downloaded services.

Architecture of the Environment for Service Provisioning and Activation:

- The Service Browser is based on the OSGi standard, which enables the dynamic life-cycle management of components.
- The visual interface is based on the mGUI library – an embedded Java GUI library that is optimized for resource-limited devices.
- The service runtime environment is the ProSyst AppLauncher, which acts as a visual shell for mGUI-based and MIDlet-based applications.
- The Service Provider Center is based on the ProSyst mPower Remote Manager – a reliable and scalable backend management platform, which provides functionalities such as remote delivery, deployment and maintenance of services to any kind of OSGi-enabled device. It also offers various subscription and pricing models for a more detailed customer relationship management.

- The transport mechanism between the Service Browser and the Service Center can use any protocol based on TCP or UDP.



ESPA Architecture

Summary:

Operators and providers need to cope with a highly competitive market in which every improvement to foster their customer relationships by a time- and cost-saving delivery and monitoring of services can help to reduce customer churn and to increase ROI. ESPA is an innovative software solution that enables operators and providers to safely and dynamically deploy, monitor and charge for services on mobile devices while facilitating the use and enhancement of services to the consumer.

If you are interested in further information on the mentioned product solutions offered by ProSyst, please visit the Solutions section of www.prosyst.com.

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