

IN MEDIATION (INM)

The difficulties associated with the integration of multiple services in a mobile network are well known, especially when these services are created by different vendors. IN Mediation (INM) Solutions from Integrated Telecom Solutions (ITS) make these problems much easier to solve by providing a holistic solution for the mediation of demands by multiple services. The challenges and problems normally associated with the integration, implementation and the seamless co-existence of many dissimilar IN services are handled by ITS' Universal Services Framework (USF) which forms the basis of IN Mediation.

FEATURES

IN Mediation is the key to the creation of a flexible services environment that allows for a single trigger to invoke multiple services in the network. In today's environment, services are deployed and supported by discrete logical nodes or sets of nodes which perform different services. Each service is independent and may be invoked separately. Generally there are no interactions between these services and there is usually no network entity that regulates or creates the framework for service interaction and context management between services. With the introduction of INM many functions can be reused for fast service creation and delivery.

IN Mediation provides for the context and service interaction management between IN services. INM enhances the existing operator network with the capability of a service broker Mediation system, providing all the required functions to enable the launch and interaction of complex IN services. INM provides an environment within which mobile providers can easily integrate multiple vendor solutions and services without the long and tedious process normally needed to integrate these different services. IN Mediation provides mobile operators with a means for service delivery management that allows subscribers to have seamless access to mobile services while at home and roaming. INM

is built upon ITS' proven Universal Services Framework (USF), an open environment within which IN Mediation happens. USF consists of key components described below.

Flexible Service Logic Engine (FSLE)

The Flexible Service Logic Engine is at the core of INM executing service components within the service chain. FSLE coordinates service logic, effectively acting as a Service Interaction Manager or a services broker between multiple and different vendor solutions in the logic flow defined by the Service Chain.

FSLE manages and determines routing, coordinates service logic - including transaction logging, statistics, context management, message validation, service chain determination and more.

Service Flow Development (Service Chain)

Through predefined scripts composed of service components, service interaction components, and service interface components INM makes it possible for network service providers to link packages of wireless applications and service features according to the needs of individual subscribers. Part of this environment is a Macro



Language capability that the mobile operator uses to create Classes of Service (COS)/ Service Chains. These Service Chains allow for the remarkably rapid introduction of new service packages without the need to undertake further software development. The IN Mediation Macro Language allows quick editing of existing templates when necessary, even after implementation of new services in the INM environment.

Input and Output Message Templates (IMT/OMT)

The IMT/OMT Subsystem is a set of templates within the IN Mediation environment used to

encode, validate messages, and decode messages. Additionally, the templates help to determine service logic and invoke services. Templates can be added as needed to support multiple protocols and variances of protocols for different manufacturers and vendors.

After a message is decoded, the values are stored in the token database and can be accessed by any of the service components as necessary.

Service Delivery Management

IN Mediation makes possible the interaction between different services seamless. This gives operators the ability to bundle various services quickly, ultimately resulting in service differentiation and easy packaging of services for mobile subscribers. INM may be used to implement stand-alone services or tie two services together such as Ring-back Tones with Prepay subscribers. With the ease and simplicity of IN Mediation, vendor services function together in the USF environment for the ultimate functionality between services regardless of vendor or the mobile service.

Reuse of developed capabilities

Using IN Mediation scripts to create the 'logic' links between the USF library, FSLE and network services, mobile operators can give subscribers a whole new set of services without the need for reengineering solutions. Because service chains are developed within the existing framework of USF no changes are necessary to offer new services. Enhancements are made only when necessary to accommodate service interactions that are not permitted by the current USF API. Furthermore, no changes are necessary to other existing services that INM mediates.

BENEFITS

- Rapid Integration in networks
- No new development necessary for services being integrated using INM
- Allows for the rapid creation of service chains to mediate between legacy services and new services being introduced
- Mix of services using service chains allows for convergence such as implementing a PREPAY service chain to offer Hybrid (Postpaid & Prepay) Subscribers
- Single MSC trigger to invoke multiple services

STANDARDS COMPLIANCE

- GSM 09.02
- UMTS 29.002
- INAP/CS1
- CAMEL – Phases 1, 2, 3 and 4
- TIA/EIA-41/IS-771



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