

InterCarrier Process System



Summary

The Challenge

- complex business rules
- varied techniques & products
- make profit with small margins

The Solution

- The InCaPS System

The Benefit

- automated workflows
- limitless contract/product definition
- flexibility and scalability
- quick ROI and guaranteed future

The Challenge

Due to global opening of the communication market, the interconnect relations between carriers is getting more and more complex. Moreover, services and bearer techniques are decoupling (e.g. VoIP) and launch of new services is speeding up. This dynamism leads to an enormous enhancement to the demands of the intercarrier process support systems. These technical issues are accompanied by the commercial reality that prices decrease, while volumes increase. These facts push carriers to plan and implement new intercarrier process support systems.

Such a system must:

- support all kinds of services
- support all business tasks
- support automated workflows
- have high performance
- be flexible and scalable
- increase profit
- have a quick ROI

The Solution

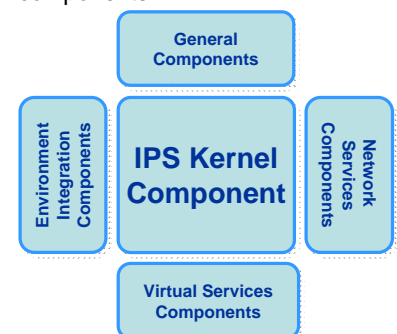
Facing this challenge, Ascom provides a fully convergent solution, InCaPS.

InCaPS is an integrated system containing off-the-shelf modules which fit perfectly to the customer demands along with tailor-made modules and interfaces to surrounding systems. With InCaPS Ascom is able to solve every carrier's intercarrier demands.

InCaPS consists of several components and modules which fulfil specific tasks. A bespoke system can be composed by selecting components and modules which are really needed. The design of the system allows easy and quick enhancement to specific demands which can suddenly arise. This assures that a tailored InCaPS suits perfectly to the enterprise with minimum investment.

The heart of InCaPS is the **Kernel** component. It takes on all commer-

cial related tasks. The Kernel is surrounded by four types of components.



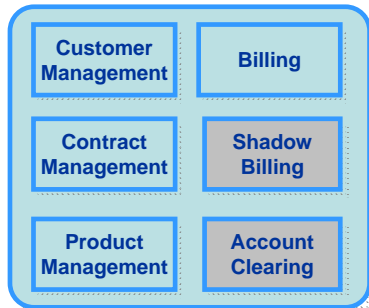
General Components: contains general system modules.

Network Services: handles with Voice, IP, ATM, FR, x.25, SS7, etc. networks

Virtual Services: contains modules for specific services. In some cases the module functionality contains the service itself.

Environment Integration: provides interfaces to embed InCaPS into the customers IT-landscape.

The following picture presents the mandatory and the optional modules (grey) of the Kernel.



Central highlight is the contract and product configuration editor. This editor enables the user to configure any contract/product type with various charging, billing and payment conditions on the fly. With these features the Contract and Product Management module, together with the Customer Management module, support most complex customer agreement immediately. Billing (outgoing invoices) and Shadow Billing (expected bills) are prerequisites for the Account Clearing module which handles disputes and settlements.

Network Service Component contains a bundle of modules. Supported telecoms infrastructure and customer demands determine which modules are mandatory or optional.. The following figure shows a full- blown Network Service



The upstream workflow: collects data from network elements, converts technical information into a generic commercial format and aggregates them according the sell and buy tariffs of the trading module. Downstream: processes calculate best cost routes according the tariffs and contract conditions

and results are supplied to network provisioning.

Virtual services components support special services. Sometimes the component itself is the service deliverer. Looking on to NGN, such components can have an important role.

Today, general components are comprised of users and roles management, access rights and reporting containing all standard and cross component reports.

Interfaces to other systems are located within the Environment Integration Component. presently, interface to SAP and a sales supporting system is supported, with the realization that the voice business is the traditional carrier business and most carriers operate respective systems, Ascom provides an integration component to such products.

Technical Issues

As a company wide solution, InCaPS is a Web-based application. All users can utilize the different components and modules on a common platform using a standard browser (min. Internet Explorer 6.0) as front-end. The back-end runs under Microsoft Windows Server 2003 and Microsoft SQL Server 2000 / 2005.



The back-end scales between a single server installation right up to huge multi-processor server farm according the volumes to be handled. In large installations Storage Area Networks (SAN) are implemented.

The Benefits

InCaPS supports all business cases with automated workflows and a convenient user interface that requires smaller staff teams to operate the business.

A flexible contract/product editor allows on the fly configuration. This

results in an easy and quick time to market process.

With the possibility to support many technical and virtual services the future is guaranteed.

The system design allows ordering single components and modules as it suits for customer's demands. This avoids unnecessary costs.

Using standard hardware and system software significantly reduces the Total Cost of Ownership (TCO).

Reference

Ascom has provided **Deutsche Telekom AG (T-Com)** with such a solution. All non-voice and virtual services are handled InCaPS.

For the voice component the product iXTools from our partner Telarix, Inc., which is specialized for the intercarrier voice business, has been integrated.

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