Faced with declining voice revenues, carriers today realize that they must move from network-centric to service-centric operations. But maintaining tight operating budgets and preserving current infrastructure investments during this transformation are challenging tasks.

**Adapting to a Changing Telecom Business Market**

As the telecommunications market shifts from legacy circuit-switched telephony solutions to next generation IP-based multi-service networks, service providers face a multitude of challenges – from the rapidly changing regulatory environment, to aggressive competition and high customer churn. To meet these challenges, service providers need to bring more value to customers and improve time to market for new, converged and highly personalized services.

**Personeta Meets the Challenge with TappS NSC**

Personeta’s TappS NSC is an intelligent network service controller and IMS application server that helps service providers enhance revenues and improve profitability with IMS multimedia and hosted business services. And, thanks to its highly flexible adaptation layer, TappS NSC delivers the same services over any network, irrespective of the underlying protocol mix – PSTN and NGN, fixed and mobile.

As a carrier-grade platform, TappS NSC is the key to a next-generation IN architecture that delivers truly compelling services that leverage existing network infrastructures, while moving operators rapidly into the future with converged value-added services. TappS NSC fills multiple functions in emerging next-generation network (NGN) and IP Multimedia Subsystem (IMS) architectures, while fully interoperating with legacy equipment to preserve existing investments. TappS functions an NG-SCP to extend legacy IN with next-generation features. It is also a generic programmable application server that provides service broker functions as an IMS SCIM and IMS-SSF.

**Personeta Open Service Architecture**

**TappS™ Network Service Controller**

- **Java SLEE - Service Container**
  - Resource Control
  - Service Control
- **Execution Layer**
  - Call Control Adaptors
  - User Interaction Adaptors
  - Presence and IM Adaptors
  - Charging and AAA Adaptors
  - HTTP / Data Adaptors
- **Control Layer**
  - Call Control Softswitch IN, IMS
  - Media Server / Media GW
  - Presence and IM
  - RAS BSS
  - External IT Server

**Platform Mgmt.**

**Service Mgmt.**

**BSS**

**OSS**

**WSDL**

**XML**

**JAVA® APIs**

**Personalized Converged Mobility**

**IMS Multi-Media services**

**Hosted Business Communication**

**Enhanced IN replacement**

**An Open, Robust Service Platform**

TappS NSC incorporates JAVA-based service creation and delivery, enabling value-added voice, data and video services. TappS service creation speeds time to market for new service offerings and improves operational efficiencies. In fact, services can be deployed on TappS NSC in a third of the time and at less than half the cost of the current industry average, allowing service providers to rapidly deploy new revenue generating products. Additionally, service providers can rapidly build and customize their own applications using the TappS NSC Software Developers Kit (SDK), with graphical service creation enhancement or they can purchase field-proven and personalized applications from Personeta.
Move from Network-Centric to Service-Centric

Field-Proven Application Server
TappS NSC is based on implementation of proven application server technology. TappS advanced resource control logic turns underlying network elements into service resources and ensures that each service gets fair access, while protecting the network from resource-guzzling, rogue applications.

The TappS service logic execution environment (SLEE) is based on the emerging JAIN SLEE standard, opening service creation to carrier and third-party Java™ programmers. The TappS SLEE runs multiple services concurrently and enables reuse of service components, yielding exceptional platform efficiency. Personeta also offers many ready-to-run applications, including:

- Voice VPN
- Network IVR
- Hosted Automated Attendant
- Fixed Mobile Convergence
- Prepaid Calling Card
- Broadband On-Demand
- Video Telephony

All TappS services can be self-provisioned and customized by both the carrier and subscribers using Web-based and telephone interfaces.

Benefits:
- Speeds time-to-market for new, converged services (1-3 months vs. 6-18)
- Lower cost to deploy new services (2-10 times less expensive)
- Mix and match application building blocks for rapid rollout of new services
- Reduces risks by supporting multiple network types – legacy and NGN
- New revenue-generating opportunities, including hosting, triple and quadruple plays

TappS NSC Specifications
Platform
- TappS components run on Sun Microsystems™ Netra™ NEBS-compliant hardware under Solaris™.

Scalability
- TappS is based on a highly scalable, distributed architecture that supports millions of busy hour call attempts (BHCA). Components may be distributed where needed and new components added for increased capacity without service interruption.

High-availability
- No single point of failure. Components deployed in N+1 redundant or active/standby configuration using fully-redundant IP networking over LAN or WAN.

Service creation environment
- Open Java APIs, Graphical

Open APIs
- TappS supports JAIN, Parlay/OSA

Built-in service components
- JCC, Parlay UI, Charging, IVR, LDAP, Messaging, HTTP

Service deployment
- Hot deployment with no interruption of service

Call control interfaces
- TappS Network Agents available for: AIN, INAP (CS1, CS2), ISUP, ISDN, SIP, CAMEL Phase 2, MAP

Network Protocols
- E1/T1 for PSTN; 100BaseT for VoIP, SIGTRAN

Media server interfaces
- SIP, MGCP

Billing support
- CDR, IPDR, UDR, RT billing

Service provisioning
- WEB Portal or WEB Services (WSDL)
- Subscriber self-provisioning: Web, telephone, messaging

Business Intelligence Tools
- Statistics, Audit

Network management
- TappS Element Management System
- SNMP and CORBA to OSS