ERICSSON SERVICE DELIVERY PLATFORM

The fast, cost-efficient and reliable way to create, introduce and manage richer communication services and media services
Service Layer

Media and Internet services

Richer communication services
INTRODUCTION
New services are taking off but…

- **Consumers situation:**
  - Not enough appealing services
  - Too many barriers to start using, e.g. device configuration, perceived too costly / unclear cost structure
  - Quality issue

- **Operators situation:**
  - Need to find profitable services to the right segments for all access types
  - Has been hard to identify revenue potential for single services
  - Costly to introduce a large number of new services
  - How to re-use existing investments / legacy systems
  - Costly to manage existing environments

- **Content / application providers situation:**
  - Complex and costly to develop fixed and mobile data services
  - Time to market too long
...where do we want to go?

- **Consumer vision:**
  - Access to wide variety of services
  - Start using the new services quick and easy
  - Convenience
  - High level of personalization
  - High quality
  - Fair price – value for money

- **Operator vision:**
  - Revenue growth from new services
  - Reduce risk, reduce cost, reduce time-to-market and reduce complexity when creating, deploying, introducing and maintaining new services in the network and business environment
  - Seamless evolution of the network and devices

- **Content / application provider vision:**
  - Reduce cost and reduce complexity when creating new services
  - Reach all potential mobile customers with one interface and one implementation
How to get there?
Operator actions

1. Understand user needs
2. Segmentation of users
3. Service offering identification
4. Development of partner strategy – buy, build, partner
5. Analyze impact on business processes
6. Develop strategy to incrementally implement a horizontal Service Network – a Service Delivery Platform
7. Service launch and management
8. User communication
THE SERVICE LAYER
What is the Service Layer?
Ericsson definition

The Service Layer is the market place where enhanced services, richer communication and content & media, are created and managed.

The Service Layer is where the telecom and IT industries get together with content and service providers to create and deliver services for consumers and enterprises.
The Service Layer

- Devices (handset, PC, PDA, laptop, TV, etc.)
- Business Support Systems
- Service Network
- Core Network
- Access Networks
- WWW (including premium content)
The Service Layer

The Service Layer captures an end-to-end perspective on the service environment:

- The user equipment – Devices
- The operator network – Service and core network, on any access network
- Connected networks – Business support systems
- Content and applications – Internet
- Business processes impacting the Service Layer
  - Fulfilment – providing customers with requested products (services)
  - Assurance – ensuring agreed service performance levels (QoS/SLA)
  - Revenue management – ensuring that customers are paying correctly for used services
The Service Layer

Network view

Service Layer

Business Support Systems

Service Network

Core Network

Access Networks

Devices
handset, PC, PDA, laptop, TV, etc.

WWW
including premium content
The Service Layer
End-to-end view

Service Layer
- Business Support Systems
- Core Network
- Access Networks

Devices
- handset, PC, PDA, laptop, TV, etc.

WWW
- including premium content

End-to-end: From devices to content and applications
The Service Layer
End-to-end view

- Devices: handset, PC, PDA, laptop, TV, etc.
- Business Support Systems
- Service Network
- Core Network
- Access Networks
- WWW including premium content

End-to-end: Business process support throughout the network
THE SERVICE NETWORK
The Service Network

The Service Network at each operator is a combination of hardware and software, providing the environment for interaction with content and services providers for executing their services. The Service Network provides:

- Enhanced user services
- Provider services for enterprises and content providers
- Support for the operators’ business processes
- Access to functions in the core and access networks
The Service Network

Service Layer

Business Support Systems

Service Network

Core Network

Access Networks

Devices
handset, PC, PDA, laptop, TV, etc.

WWW
including premium content
THE SERVICE DELIVERY PLATFORM
The Service Delivery Platform

A Service Delivery Platform is the foundation of a customer realization of a horizontal Service Network. A Service Delivery Platform provides:

- A tight integration to the operator’s business processes
- Re-use of functionality with common functions
- Service life-cycle management
The Service Delivery Platform

- Devices: handset, PC, PDA, laptop, TV, etc.
- Business Support Systems
- WWW including premium content

- Service Layer
- Core Network
- Access Networks
- Service Delivery Platform
The Service Delivery Platform
Ericsson definition

A Service Delivery Platform is a set of components that allows a network operator to deliver new digital services through a horizontal Service Network.

A fundamental requirement is that the Service Delivery Platform supports and tightly integrates with the operator’s business processes and operational processes.

The Service Delivery Platform supports complete service life-cycle management, including creation, deployment, provisioning, utilization and withdrawal, charging and operation & maintenance.

The Service Delivery Platform is built on common functions:
- Service creation environment and application servers
- Common support functions
- Common service enablers

The Service Delivery Platform is designed to deliver services over multiple access networks.
Service life-cycle management
Service life-cycle management

Needed functions

- De-subscription
- De-registration
- Delete service
- User behaviour tracking
- User segmentation
- User devices
- Service design / service sourcing
- Debugging
- Testing
- Pre monitoring
- Operation and maintenance
- Customer relationship management
- Service registration
- Service provisioning
- Marketing campaigns
- Charging
- Payments
- Authentication
- Authorization
- Session Management
- User provisioning
- Activation
- Device configuration
Common functions
Common support functions and common service enablers

Service creation environment
Application servers

- Common provisioning
- Common device management
- Common data access
- Common service catalogue
- Common charging
- Common identity management
- Common operations & maintenance
- Service enabler integration

SMS-C
MMC
Instant messaging
Streaming Server
IN Server
Positioning Server
Presence Server
PoC Server
Service creation environment

…and application servers

- **Service creation environment**
  - Creation environment for in-house, partner and external services
  - Flexible service creation across all common enablers
  - Using standard IDE’s and IT tools
  - Exposing network capabilities to simplify internal and external service development
  - Abstracting common elements of service logic into reusable software components
  - Allow operators to focus on business processes in application development
  - Seamless deployments on application servers
  - Integration with IT systems

- **Application servers**
  - Application platform – unified development, runtime, and management for operator business logic
Common support functions

Examples:

- **Provisioning**
  Allow service and user data provisioning.

- **Device management**
  Provides ease of use of new services for the consumers.

- **Service Catalogue**
  Provide a registry for all services according and its implementation in the operator network.

- **Data access**
  Provides a unified end user profile with for services and policies.

- **Charging**
  Provides real time convergent charging for all services.

- **Identity management**
  Provides common way of managing your digital identity in the service network.

- **Operations & maintenance**
  Common performance and configuration management for service layer systems and service applications.

- **Service enabler integration**
  Provides a business to business framework to utilize the service enablers for external application developers and application servers.
Common service enablers

Examples:

- The common enablers are network capabilities providing either the actual service delivery channel / communication channel or capabilities adding value to the channel, such as:
  - SMS center
  - MMS center
  - Instant messaging server
  - Streaming server
  - Browsing proxy
  - Mobile positioning server
  - Presence server
ERICSSON’S OFFERING
Realizing a customer specific Service Delivery Platform
Ericsson Systems Integration
Realizing a customer specific Service Delivery Platform

**OPERATOR BUSINESS AND TECHNOLOGY REQUIREMENT**

<table>
<thead>
<tr>
<th>Analyze and Select</th>
<th>Modify and complement</th>
<th>Make it work end-to-end</th>
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<td>Integration Design</td>
<td>Product Customizations &amp; Customer Adaptations</td>
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<td>Analyze existing environment and identify needs and scope of solution</td>
<td>Ericsson products and applications</td>
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<td>Partner or 3pp sourced products and applications</td>
<td>Interface adaptation of products and applications</td>
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<td>Integration</td>
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<tr>
<td>Integrate to operator’s existing multi-vendor service environment and networks</td>
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**CONSUMER EXPECTATIONS AND DEMANDS**
Ericsson Service Delivery Platform

Toolbox to realize customer specific horizontal service network solutions based on:

- Conceptual thinking
  - Service Network Framework, including industry standards
- Re-usable and standardized design
- Professional services for service delivery
- Components
  - Service creation environment and application servers
  - Common support functions
  - Common service enablers
Ericsson Service Delivery Platform
Conceptual thinking – Service Network Framework

An Architectural Framework consisting of Reusable Designs for Products and Solutions in the Service Layer

- High Scalability
- High Availability
- Manageability
- Standards alignment
- Openness
- Interoperability
- Security
- Modularity
Ericsson Service Delivery Platform
Professional services for optimal service delivery

- Business consulting
- Consumer analysis
- Service Network strategy analysis
- Solution analysis
- System-to-system integration
- End-to-end Systems Integration
- Telecom management services and solutions
  - Service provisioning
  - Service assurance
  - Revenue management
  - Network management
- Managed services
  - Hosting
  - Lifecycle solution management
# Ericsson Service Delivery Platform

## Components

<table>
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<th>Component</th>
<th>Software Components</th>
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<tr>
<td>Common provisioning</td>
<td>EMA, ADC, CD</td>
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<td>Common device management</td>
<td>SCR, EMM, USIS</td>
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### Service creation environment

- Application servers
- 3PP

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Ericsson Service Delivery Platform Components

Components include:

- Common provisioning
- Common device management
- Common data access
- Common service catalogue
- Common charging
- Common identity management
- Common O&M
- Service enabler integration
- Common service enablers

Software components such as EMA, ADC, CD, SCR, EMM, USIS, NRG, SMS-C, MMC, IMP, ECDS, MIEP, and MPS are used in various components.

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Ericsson Service Delivery Platform Components

Components include:

- Common provisioning
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- Common O&M
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- Common service enablers

Software components such as EMA, ADC, CD, SCR, EMM, USIS, NRG, SMS-C, MMC, IMP, ECDS, MIEP, and MPS are used in various components.
Ericsson Service Delivery Platform

Content Domain
- Content
- Content Creation
  - IDE, Testing Tools
- Service Creation

Service Domain
- Services
- Common Service Enablers
  - SMS-C, MMC, Location Server, Streaming Server, IN, Presence, Instant Messaging, PoC
  - IP Infrastructure

End-user Domain
- Client
  - SMS, MMS, WAP, http, IVR, PoC

Presentation & rendering
- Support Functions
  - Content Delivery
    - Content Management, Media DB, DRM, Transcoding
  - Service Provider
    - Support Functions
      - SLA, Service Catalogue

Service Control and Execution

Common Support Functions
- Provisioning
- Data access
- Device management
- Service Catalogue
- Charging
- O&M
- Identity management

Core Network

Business Support Domain
- ERP
- CRM
- Billing
- O&M

Operations Support Domain
Ericsson Service Delivery Platform
Evolution of functionality

- Each component will evolve over time
  - Product roadmaps based on:
    - Consumer and enterprise understanding
    - Service and content evolution
    - Terminal/client evolution

- Re-use of Service Delivery Platform solutions
  - Global competence and experience sharing network
  - Customer specific functionality shared if agreed

- Customer specific evolution
  - Functionality added with Systems Integration
Ericsson Service Delivery Platform

Values

**For end users**
- More services to choose from
- Improved experience
- Ease of use increased
- Higher quality of services
- Higher quality of service delivery

**For content & service provider**
- Improved interaction and speed with the operator e.g. charging and user statistics
- Increased revenue
- Reduced cost
- Reduced risk

**For operator**
- Revenues from new services
- Increased usage of new services
- Better customer services
- Stickiness – increased market share
- Fast service launch
- Efficient environment for service delivery
- Reduced costs and investment over time
- Opportunities for convergence
- Increased flexibility and simplicity
WHY ERICSSON?
“Ericsson is the only vendor in the world that has taken horizontal service network from slides and made something tangible with it”

Director of a North American operator
Why Ericsson?
A complete offering

- **Ericsson Service Delivery Platform**
  - Market leader in realizing horizontal service network solutions
  - Market leader in common charging, multimedia messaging, common provisioning, user databases, etc.
  - Partnering with best-of-breed suppliers in specific areas
  - Pre-verified components
  - We drive standards in 3GPP, OMA, Liberty Alliance, etc.
  - SNF – Service Network Framework

- **Professional services**
  - Systems Integration
  - Business Consulting
  - Managed Services Hosting
  - Solution Management

- **Other services**
  - Consumer insights – 20,000 interviews 2004, 17 different countries
  - Application and content partners – 65,000 partners in community, 100+ close partners with 1,000+ applications
REFERENCES
References, examples

- **Ericsson Service Delivery Platforms, examples**
  - Telstra, Australia
  - TCC, Taiwan
  - Wind, Italy
  - Colombia Movil
  - MobiFon, Romania

- **Hosting, examples**
  - Western Wireless, USA, Hosting of MMS
  - Telefónica Móvil, Chile, Hosting of mobile data service portal
  - BT, UK, Hosting of mobile data service portal
  - Tele2, Sweden, Hosting of M-USE
  - Maxis, Malaysia, Hosting of M-USE
  - Sun Cellular, Philippines, Hosting of video streaming

- 500+ Operations Support, Network Management, and Service Assurance solutions
- 100+ charging & mobile prepaid solutions with 100+ million subscribers
- 450+ billing, mediation, activation and settlement solutions
- 300+ messaging systems in operation
- 50+ multimedia messaging systems
- 70+ WAP gateways
- 40+ common enabler solutions, systems and trials; such as Streaming, Positioning, Downloading, Video telephony
Consumer and Enterprise Lab
20,000 face-to-face interviews, representing 600 million users in 2004

System integration and business consulting
1,000+ customer solution projects in 2004

Ericsson Mobile Platforms
10 WCDMA models, 30% market share in 2004

Ericsson Service Delivery Platform
No 1 in delivering horizontal service networks
No. 1 in charging, messaging, provisioning, user & service databases

IT

Media

Ericsson Mobility World
100+ global partners with 1000+ verified applications
¾ million+ developers in community

Partners
Products and services

Hosting
15 hosting contracts in 2004

Telecom

Sony Ericsson