



Voice Solutions.

Services International Carrier Sales & Solutions (ICSS)

Life is for sharing.



Voice Solutions.

Global connectivity for your voice services.

The market for voice services is undergoing rapid and significant change. While the demand for traditional voice services has seen its peak, mobile communication and VoIP services are proliferating. The operation of next generation networks is required for the flexible handling of voice traffic irrespective of its source and for economically dealing with growing traffic volumes and increasingly complex requirements in view of shrinking margins. Market conditions remain difficult, which makes a strong international partner that can provide individual solutions for your voice traffic requirements vital.

Deutsche Telekom, the largest European telecommunications company, has over fifty years of experience as a network provider and is one of the pioneers in VoIP services and solutions. Based on our Next Generation Voice International (NGVI), we provide you with customized voice solutions for your distinctive needs.

Voice Trading.

Voice Trading is an ICSS unit specialized in buying and selling voice minutes. Traders interact with over 450 customers and vendors to trade international voice minutes at 85 points of presence all over the world. In 2008 ICSS traded more than 21 billion voice minutes. Traders are working in a highly automated, transparent IT environment in order to improve buying capabilities to minimize termination cost and maximize network performance for ICSS's Global Voice Hubbing Services.

Outsourcing.

Today's voice market demands ongoing efficiency improvement and a focus on core competencies from telecom players. While financial efficiency is mainly driven through the improvement of EBIT and the maintaining of state-of-the-art technology without massive investments, minimum scale is key to considering international voice services to be a core competence.

ICSS is successfully showing its outstanding ability to design and implement tailored, high-quality international voice outsourcing solutions according to the specific needs of our customers. We have also proven that our solutions are more economical and have higher quality than our customers are able to deliver on their own.

Global Voice Hubbing services – your direct link to any destination worldwide.

ICSS's seamless global Voice Hubbing service is designed to provide you with a flexible international voice termination service. You decide how to interconnect to ICSS's network. Access to the service is possible via:

- IP protocol with dedicated ports and/or via public IP
- TDM circuits

Based on your cost and quality requirements and type of your market segment, you can choose from three available service level categories for your voice termination. In all three service levels, ICSS acts as a single point of contact. It can offer worldwide coverage, thus eliminating the need for you to negotiate any further contract for terminating your international voice traffic.

Mobile Hubbing:

This solution is especially designed for the needs of mobile operators. Enjoy all the mobile services you require and expect the best quality at a stable price level! Your subscriber will not miss a call-back opportunity, which will increase your revenue. ICSS's offering includes:

- End-to-end calling line identification (CLI) transmission
- Access to web-based tools for quality monitoring in real time
- Transmission of 3G video telephony calls on a 64 kbps basis

All traffic is sent over the highest quality routes such as our own direct routes to fixed and mobile networks and our selected Tier 1 transit partners. These features are combined with a state-of-the-art customer care and quality monitoring to ensure the very best conveyance of your subscribers' calls.

Premium Hubbing:

When quality can make or break a deal, trust our Premium Hubbing service. Our routing managers direct your traffic to Deutsche Telekom's quality routes with overflow options and 24/7 network monitoring for proactive and reactive measures in case of a failure and quality issues.

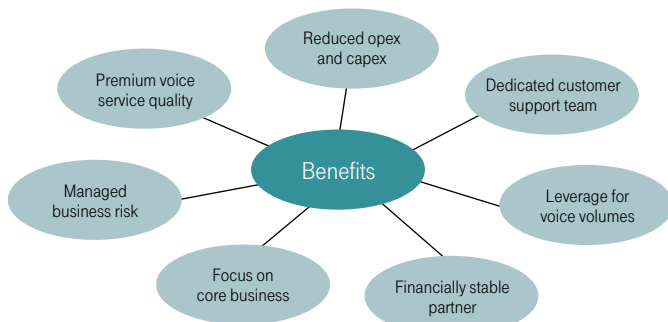
The following KPIs are monitored:

- Answer Seizure Ratio (ASR)
- Network Efficiency Ratio (NER)
- Average Length of Call (ALOC)

Standard Hubbing:

Standard Hubbing is our service offering for situations in which low cost is key. It is a price-optimized, least-cost routing offer with decent quality since it always uses the cheapest routes available.

Benefits for our customers



Voice product KPI's

	Mobile Hubbing	Premium Hubbing	Standard Hubbing	ITFS Hubbing
Number of overflows	up to 8	up to 8	0	0
Quality monitoring	permanent	permanent	no	permanent
Capacity monitoring	daily	daily	no	once a week
Direct routing	yes	yes	no	yes
Clear channel (64kbps)	yes	no	no	no
DTMF	yes	yes	no	no
Fax G4	yes	no	no	no
Fax G3	yes	yes	no	yes
Mobile roaming number	yes	yes	no	no
CLI	yes	yes	no	no
RDN	yes	no	no	no
OCN	yes	no	no	no
ASR	like bilaterals	10% below bilaterals	50% below bilaterals	like bilaterals
PDD Europe	< 6 seconds	< 9 seconds	no focus	< 5 seconds
PDD Rest of World	< 8 seconds	< 11 seconds	no focus	< 5 seconds
PGAD	< 5 seconds	< 8 seconds	no focus	< 5 seconds
Trouble tickets	yes	yes	yes, if line is down	yes
Maintenance windows	14 days in advance	14 days in advance	14 days in advance	14 days in advance

ITFS Hubbing – your global freephone service:

ICSS ITFS Hubbing provides you with international freephone numbers to collect retail minutes in over 40 countries from fixed lines, mobile, and payphones. This is a global access service for the special requirements of calling card providers or companies with a global footprint, such as the finance industry or car manufactures. As part of the package, ICSS

- provides you with national freephone numbers (IFN) for your countries of interest
- provides you with universal freephone numbers (UIFN) (worldwide unique numbers assigned by ITU)
- provides multiple routing numbers to differentiate between traffic types
- collects the retail calls and transmits to your network with a routing number or even translated into a standard PSTN number
- settles with the originating carrier
- offers seamless migration to ICSS network with porting of previously existing freephone numbers

About Deutsche Telekom ICSS.

ICSS, the international wholesale arm of the Deutsche Telekom Group, is one of the biggest voice carriers worldwide and an increasingly important IP player across a growing European market with excellent interregional connections between Europe, the Americas and Asia. With continuously changing markets, ICSS has redesigned its portfolio from traditional voice and transport services to advanced innovative wholesale services and customized IP solutions. The business activities and efforts of ICSS focus on serving the following market segments: broadband operators (ISPs, WISPs, and VoIP SPs), mobile operators and MVNOs, content, application and media providers, corporate service providers and VNOs, fixed voice carriers, and carriers' carriers and their customers through a worldwide sales network.

For further information, see

www.deutschetelekom.com/icss

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