3GPP TSG SA Plenary,
Meeting #11
Palm Springs, USA.
18th - 21st March 2001

MRP/3GPP/3GPP"/ITU Services Deployment Workshop - Services/Technology Matrix - Draft 19/02/01

		Service Categories		Mobile Internet Access		Intranet/Extranet Access		Customised Infotainment		Location Services		Multimedia Messaging Service		"Rich V (IMS Ser
		Example Services		Web Page Browsing		Calendar Sync?	Corporate Secure Email?	Downloadable Ring Tones	Wireless Internet Shopping	Location Plus	e911	Teen Video Chat	Picture Messaging?	Call/Session Hold
	Features -	**Building Blocks**	**SDO**											
	New, or substantially enhanced functionality which represents added value to the existing system.	A sub-division of a feature, representing a coherent set of technical functionality which would generally be expected to reside in a single system element.												
	GERAN/UTRAN Interface Evolution	Improvements of Radio Interface	3GPP											
		Improvement of inter-frequency and inter-system measurement	3GPP Rel 5											N/A
suggest deletion		Base station classification	3GPP Rel 4											N/A
		Hybrid ARQ II/III	3GPP Rel 5											N/A
		Improved usage of downlink resource in FDD for CCTrCHs of dedicated type	3GPP Rel 5											N/A
		Terminal Power Saving features	3GPP Rel 4											N/A
		UTRA repeater specification (master)	3GPP Rel 4											N/A
		DSCH power control improvement in soft handover	3GPP Rel 4											N/A
		FS on Radio link performance enhancements												N/A
		FS on High Speed downlink packet access												N/A
		FS on USTS												N/A

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	Features -	Building Blocks	SDO											
		FS on improved common DL channel for Cell-FACH state												N/A
		Support of CS on IuCS												N/A. Our vision of rich voice is via IMS over Iu-ps
		Support of CS on A I'face												N/A. Our vision of rich voice is via IMS over Iu-ps
not a feature. Suggest deletion		Overall GERAN description												EDGE is an unlikely customer of Aspira IMS
		GERAN RR												EDGE is an unlikely customer of Aspira IMS
	GERAN Improvements 1		3GPP											
		Gb over IP	3GPP Rel 4											
not a feature. Suggest deletion	GERAN Improvements 2	Gb Enhancements												
not a feature. Suggest deletion	GERAN 700MHz		3GPP											Air interface has little or no impact on IMS rich voice per my understanding.
	Low Chip Rate TDD Option		3GPP Rel 4											
		Low Chip rate TDD interworking with GERAN	3GPP Rel 4											little or no impact on IMS per my understanding
		Physical layer	3GPP Rel 4											little or no impact on IMS per my understanding
		Layer 2 and layer 3 protocol aspects	3GPP Rel 4											little or no impact on IMS per my understanding
		transmission/reception, system performance requirements and conformance testing	3GPP Rel 4											little or no impact on IMS per my understanding
		UE radio access capability	3GPP Rel 4											little or no impact on IMS per my understanding
		Iub/Iur protocol aspects	3GPP Rel 4											little or no impact on IMS per my understanding

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	Features -	Building Blocks	SDO											
	Wideband Telephony Feature		3GPP Rel 4	Not needed		Not needed	Not needed	Not needed	Higher quality audio could be a useful enhanced service offering in this category	Not needed		Demand for low tariff for this service probably makes this feature redundant	Not required for picture only messaging. Possibly for picture plus voice	N/A
		AMR Wideband Support in GERAN		See above		See above	See above	See above	See above	See above		See above	See above	N/A
		MS Conformance tests for AMR Wideband		See above		See above	See above	See above	See above	See above		See above	See above	N/A
		BS Conformance tests for AMR Wideband		See above		See above	See above	See above	See above	See above		See above	See above	N/A
	Provisioning of IP-based multimedia services	Provisioning of IP-based multimedia services	3GPP Rel 5											
		Call control and roaming to support IP-based multimedia services in UMTS	3GPP Rel 5											Essential Requirement
		Access Security for IP-multimedia services	3GPP Rel 5											Essential Requirement
		Lawful interception	3GPP Rel 5											mandated requirment
		RAN improvements and evolution of the bearers on the Radio interface to enable efficient IP-based multimedia services in UMTS	3GPP Rel 5											Essential Requirement
		(Copy) Ensure reliable QoS for PS domain and IM subsystem	3GPP Rel 5											Essential Requirement
		(Copy) Charging and OAM&P	3GPP Rel 5											charging must be enhanced for new voice services
		(Copy) AMR-WB	3GPP Rel 5											?
		multimedia and CS domain networks (roaming support within and between	3GPP Rel 5											Essential Requirement

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	Features -	Building Blocks	SDO											
		Support of VHE/OSA by Rel4 network entities and protocols of the IM subsystem (e.g. CSCF)	3GPP Rel 5											Essential Requirement
		Number portability in IM subsystem	3GPP Rel 5											can be enhanced with SIP signalling or deployed via CAMEL
		Multimedia codecs and protocols for conversational PS services	3GPP Rel 5											currently call for support of AMR, EFR, Mpeg3, H.261, H263
	Security enhancements													
		UE triggered authentication during connections	3GPP Rel 4											
		Evolution of GSM CS algorithms (e.g. A5/3 development and deployment)	3GPP Rel 4											
		Evolution of GSM PS algorithms (e.g. GEA 2 deployment)	3GPP Rel 4											IMS concerned with UEA
		Protection for user plane data	3GPP Rel 5											
		Network domain security												answered by IP Sec

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	Features -	Building Blocks	SDO											
		MAP application layer security	3GPP Rel 4											
		Key management for core network security							e-wallet for payment options (information about the user, e.g. name/address/credit card #)					
		Visibility and Configurability of security	3GPP Rel 4											
		FIGS	3GPP Rel 5											
		General security issues												
		Enhanced HE control of security (including positive authentication reporting)												User Preference - strong
	Single security Mechanism			User Preference - strong		User Preference - strong		User Preference - strong		User Preference - strong		User Preference - strong		User Preference - strong
		transparent authentication		Essential Requirement					Confidentiality and Authentication required					Essential Requirement
	Transparent End-to-End PS mobile streaming application		3GPP, Rel 4											Essential Requirement
	Automatic Routing to POP			User Preference - strong		User Preference - strong		User Preference - strong		User Preference - strong		User Preference - strong		User Preference - strong
	On-Line Graphics Interface													?

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	Features -	Building Blocks	SDO											
	customization	MExE							Need simple GUI interface - too many steps involved in completing a transaction may cause users to get frustrated and cancel transaction					role of MExE in IMS core is unclear
	Wide Area Access													
	Capability Negotiation End to End					Preference		Essential Requirement	Popular m-commerce transactions will involve purchases					Essential Requirement
	Data Transport Protocols													
		TCP/IP												
		WAP												
		SMS												
	Evolutions of the transport in the CN													Essential Requirement
		IP Transport of CN protocols (e.g., CAP, MAP)	3GPP Rel 4											Essential Requirement
		FS on Transport and control separation in the PS CN domain												Essential Requirement
		Multimedia Call Model (SIP)												Essential Requirement
		SIP Client on the Handset										Provides significant enhancement		Essential Requirement
		QoS Support (copy)										Essential		Essential Requirement
		Location Server Product (e.g. GMLC)							Carriers can control user's location information for notification / push requirement (e.g., sale at a nearby store)	Essential Requirement		significant enhancement to the service		N/A
		IPv6 is needed for SIP												Essential Requirement
		IPv6 to IPv4 interworking		Essential Requirement										Essential Requirement if thru PDN to desktop voice application?

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	Features -	Building Blocks	SDO											
	Evolutions of the transport in the UTRAN													Essential Requirement
		IP transport in the UTRAN	3GPP Rel 4											Essential Requirement
		RAB support enhancement - no ROHC	3GPP Rel 5											Essential Requirement
		RAB support enhancement - ROHC part only												Essential Requirement
		QoS optimisation for AAL2 connections over Iub and Iur	3GPP Rel 4											Essential Requirement to deploy on R99 systems
	RAN improvements (e.g. bandwidth efficiency)													
		Smart antenna	Rel4											N/A
		RRM optimization for Iur and Iub	Rel4											N/A
		Node B synchronisation for TDD	Rel4											N/A
		Header compression removal/stripping in the RAN	3GPP Rel5											Essential Requirement
		Unequal error protection in PS domain in the RAN	3GPP Rel5											Important Requirement
	CAMEL Phase 1		3GPP											enables 1-800 and LNP queries
	CAMEL Phase 2		3GPP											enables prepaid for voice call sessions
	CAMEL Phase 3		3GPP											enables prepaid for data call sessions
	CAMEL phase 4													
		Service requirements	3GPP Rel5											
		Charging notification to the CSE	3GPP Rel5											
		Call Party Handling	3GPP Rel5											
		Mid call procedure for MO and MT calls	3GPP Rel5											

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	Features -	Building Blocks	SDO											
		Interactions with Optimal Routing	3GPP Rel5											
		Inclusion of flexible tone injection	3GPP Rel5											
		CSE control over MT SMS	3GPP Rel5											
		CAMEL applicability to media streams like VoIP	3GPP Rel5											
	MExE enhancements							operator preference?				Essential to support adaptable terminal		
		MExE Security	3GPP Rel4											essential requirement?
		Improvements and Investigations	3GPP Rel4											
	VHE enhancements													strong preference. Not essential for 1st deployment
		Detailed definition of the VHE user profile	3GPP Rel5											
		Extensions to existing (and possibly new) toolkits	3GPP Rel5											
		Interaction between toolkits to enable IP multimedia services	3GPP Rel5											
		Transparent roaming for services	3GPP Rel5											
	OSA enhancements											Essential user requirement		operator requirement
		General Stage 2	3GPP Rel5											
		Interactions OSA - e-commerce	3GPP Rel4											
		OSA APIs for MuMa CC	3GPP Rel5											
		OSA security (!)	3GPP Rel5											
		Retrieval of Terminal capabilities	3GPP Rel5											
		LCS - OSA interfaces (!)	3GPP Rel5											
		(copy) Charging and OAM&P (!)	3GPP Rel5											

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	Features -	Building Blocks	SDO											
		provide option to operator to release call control												operator preference
	Proramability													
		JAVA												
		Software Developer's Toolkt												
	Emergency call enhancements													
		For IP & PS based calls	3GPP Rel 5											rich voice session needs to be enabled w/o SIM present
		For CS based calls	3GPP Rel 4											N/A
		Emergency Services (E911)(copy)												rich voice session needs to be enabled w/o SIM present
	Enable bearer independent CS architecture		3GPP Rel4											N/A to IMS
		Enable bearer-independent call control	3GPP Rel4											N/A to IMS
		Lawful interception (copy)	3GPP Rel4											N/A to IMS
		Bearer Independence and codec control issues	3GPP Rel4											N/A to IMS
	CS multimedia services		3GPP Rel4											N/A to IMS
		Stage 1	3GPP Rel4											N/A to IMS
		Stage 2 (has it to be handled? H.324 M ?)	3GPP Rel4											N/A to IMS
		Circuit-switched multimedia swap and fallback	3GPP Rel4											N/A to IMS
	Facsimile		3GPP Rel4											N/A to IMS
		Real Time Fax	3GPP Rel4											N/A to IMS
	Global Text Telephony													
		Minimum solution	3GPP Rel4											N/A to IMS
		Improvements of GTT	3GPP Rel 5											should be implemented on MGW
	Bearer Modification without pre-notification													

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	Features -	Building Blocks	SDO											
		Testing Support of Bearer modification without prenotification	3GPP Rel4											?
		Stage 1	3GPP Rel4											?
		Service Modification without pre-notification	3GPP Rel4											?
		Bearer Modification because of radio conditions	3GPP Rel4											?
	Transcoder-Free Operation		3GPP Rel4											important requirement
		OoBTC solution	3GPP Rel4											
		Speech Transcoder: Location and Control at the UMTS Core Network Border	3GPP Rel4											
	Tandem Free aspects for 3G and between 2G and 3G systems		3GPP Rel4											important requirement
		Tandem Free AMR	3GPP Rel4											important requirement to preserve MOS
	Location Services enhancements													
		Event based and Periodic LCS	3GPP Rel5											
		(copy) Charging and OAM&P (!)												
		New security aspects of LCS (not identified)												
		LCS support in the CS domain	3GPP Rel4											n/a
		LCS support in the PS domain	3GPP Rel4											important requirement
		LCS interoperation stage 2 aspects	3GPP Rel4											
		CBS interactions	3GPP Rel4											
		MExE interactions	3GPP Rel4											
		UE positioning	3GPP Rel4											

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	Features -	Building Blocks	SDO											
		(Copy) LCS application interfaces (LCS-OSA)												
		FS on LCS support in the IM CN subsystem												
		Open LCS interfaces in UMTS and GERAN	3GPP Rel5											
	Ensure reliable QoS for PS domain (Master)		3GPP Rel4											
		stage 2 for End-to-end QoS (re)negotiation and reservation mechanisms	3GPP Rel4											essential requirement
		stage 3 for End-to-end QoS (re)negotiation and reservation mechanisms, including HO	3GPP Rel4											essential requirement
		Mapping of end to end QoS parameters on each interface	3GPP Rel4											essential requirement
		PS-domain handover for real-time services	3GPP Rel4											essential requirement
		Interactions between external mechanisms and UMTS mechanisms for QoS negotiation and reservation	3GPP Rel4											essential requirement
		Possible new code points in QoS IE from external networks	3GPP Rel4											essential requirement
		Possible new code points in QoS IE for UMTS	3GPP Rel4											essential requirement
		Mapping between the QoS UMTS point codes and the QoS External point codes	3GPP Rel4											essential requirement
		(Copy) Charging Management	3GPP Rel4											essential requirement

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	Features -	Building Blocks	SDO											
		Security aspects	3GPP Rel4											essential requirement
		Application aspects, multi-mode aspects	3GPP Rel4											
		GERAN QoS Aspects	3GPP Rel4											
		Evolution of maximum SDU size	3GPP Rel4											
		Admission control function triggers	3GPP Rel4											essential requirement
	QoS for CS services at HOs (inter-MSC and SRNS change)		3GPP Rel4											
		UTRAN aspects	3GPP Rel4											
suggest deletion		GERAN aspects	3GPP Rel4											
	UICC/(U)SIM enhancements and interworking		NA											
		FS on UICC/ME Performance Enhancements												
		UICC/USIM database specification	Rel4											
		Common PCN Handset Specification (CPHS)	Rel4											
		report on SIM/USIM Interworking												
	(U)SIM toolkit enhancements		NA											
		Enhancements to (U)SIM toolkit secure messaging	Rel4											
		Protocol Standardisation of a SIM Toolkit Interpreter	Rel4											
		USAT local link	Rel4											
		UICC API	NA											
		USIM Toolkit security												NA to IMS
	Support of Push Services		3GPP Rel5											essential requirement to enable many Aspira services

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	Features -	Building Blocks	SDO											
	Charging and OAM&P (Master)													essential requirement
		Principles, high level Requirements and Architecture (AR/PR) (Master)	3GPP Rel4											essential requirement
		Performance Management (PM) (Master)	3GPP Rel4											essential requirement
		Fault Management (FM) (Master)	3GPP Rel4											essential requirement
		Configuration Management (CM) (Master)	3GPP Rel4											essential requirement
		Charging Management for all-IP UMTS networks (Master)	3GPP Rel4											essential requirement
		Charging Management (CH) (Master)	3GPP Rel4											essential requirement
	Subscription Management		3GPP Rel4											
	Data Management													
		Ability to synch												
		External Memory												
	Intra Domain Connection of RAN Nodes to Multiple CN Nodes		3GPP Rel5											
		Overall System Architecture	3GPP Rel5											essential requirement
		RAN work	3GPP Rel5											essential requirement
		GERAN work	3GPP Rel5											not in Aspira vision
		CN work	3GPP Rel5											essential requirement
	SIM Apps Toolkit													probably not applicable to IMS Rich Voice
	Instant Messaging service											More widely applicable than 3GPP MMS		enables text msg to be sent as PopUp screen during "Session Hold"
		Presence										Adds useful additional capability		N/A
	Connection to Apps Servers within Network	via Parlay, JAIN, CAMEL												essential requirement - JAIN not envisioned for Aspira
	Connection to Apps Servers outside of Netwok	via Parlay, JAIN, CAMEL												essential requirement - JAIN not envisioned for Aspira

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	Features -	Building Blocks	SDO											
	Internet Utilities													
		ability to search												
		use of directory												strong preference
	Entertainment													N/A
	Financial Services													N/A
	Internet													Session Hold can display web page for more options to caller.
	Intranet													Session Hold can display web page for more options to caller.
	Navigation/Location													N/A
	Personal Information Management (PIM)													N/A
	Virtual Mouse /Directional Wand													N/A
	Voice-Activation													enables user to voice-activate HOLD commands, should be transparent to IMS
	Video conferencing													msg on HOLD has ability to stream a commercial/ personalized msg/etc.. to calling party.
	ME Commerce													N/A
	Internet Games													N/A
	Unified Messaging													when HOLD party does not wish HOLD longer, connection to UMS should be presented
	B2B business data apps													N/A
	Info Services													N/A
	Machine-to-Machine													N/A
	M-Commerce Transactions													N/A
	Multimedia (video audio real time streaming, telemedicine, education)													msg on HOLD has ability to stream a commercial/ personalized msg/etc.. to calling party.
	Streaming audio/video – non-real time													msg on HOLD has ability to stream a commercial/ personalized msg/etc.. to calling party.

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	Features -	Building Blocks	SDO											
	Advertising													msg on HOLD has ability to stream a commercial/ personalized msg/etc.. to calling party.
	E-mail / Messaging													when HOLD party does not wish HOLD longer, connection to UMS should be presented
	Simple Voice													this is the 1st Rich voice feature
	M-information (user statistics)													operator preference
	Voice over IP													this is the 1st Rich voice feature
	Downloadable Ring Tones / Graphics													enhanced when not using SMS/WAP
	Just the Ticket													N/A
	Micro-Payments													N/A
	Online Dating													rich voice enables the union of voice and video imaging
	Teen Video Chat													rich voice enables the union of voice and video imaging
	Transaction Processing													N/A
	Voice Portal													N/A
	Web Browsing													N/A
	Multimedia messaging	3GPP Rel4												when HOLD party does not wish HOLD longer, connection to MMS should be presented
	Short message Service (SMS)													when HOLD party does not wish HOLD longer, connection to SMS should be presented
	Directories													N/A
	Localized Info (Current User Location)													enable calling party to determine location of called party
	Localized Info (Future / Planned Location)													
	Location Sensitive (Billing/Routing)													enables pricing options to drive rch voice traffic in environments such as campuses, office bldgs, etc..

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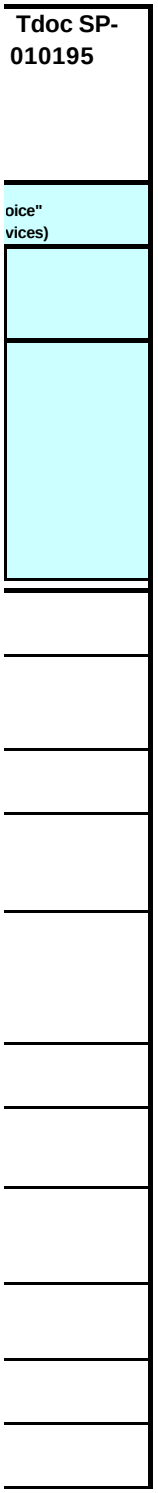
	Features -	**Building Blocks**	**SDO**											
	Location-Based M-Commerce													N/A
	Tracking / Personal Security													N/A
	Alerts													N/A
	Application Synchronization													rich voice enables the union of voice and video imaging
	eWallets & Shopping Enhancements													N/A
	Instant Messaging/ Message Aggregation													N/A
	Telematics													N/A
	Financial/Banking (E-cash)													N/A
	Mobile VPN													enables pricing options to drive rich voice traffic thru wireless PBX
	Online gambling													N/A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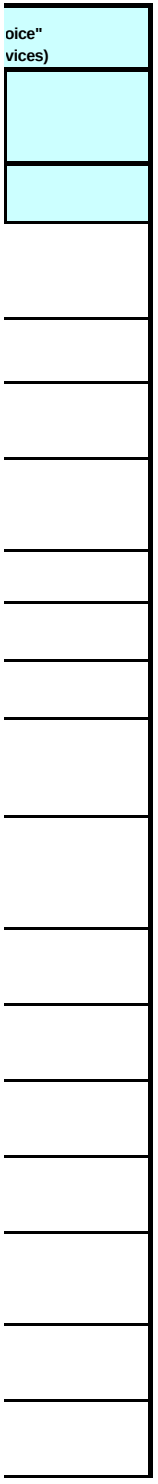
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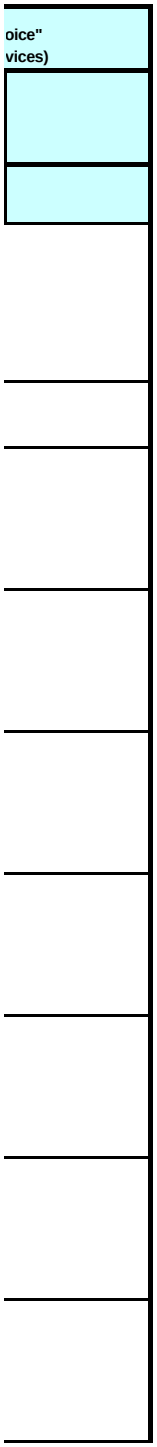
Will be required as a voice option in this category
See above
See above
See above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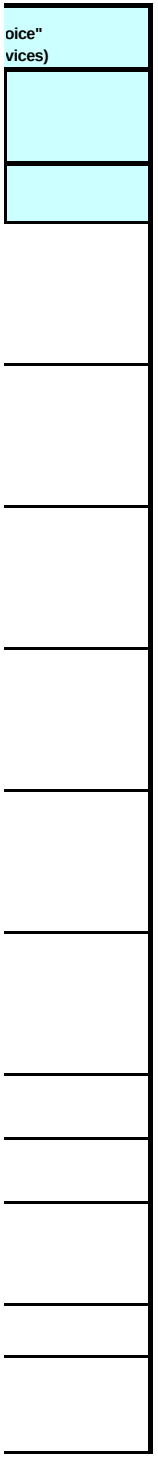
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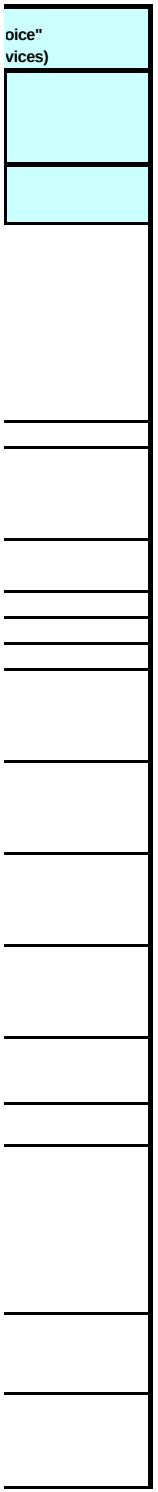
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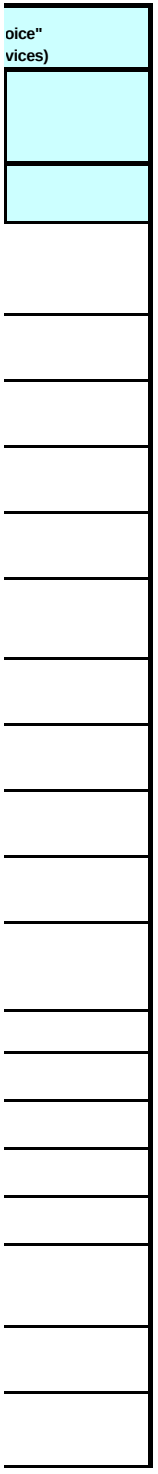
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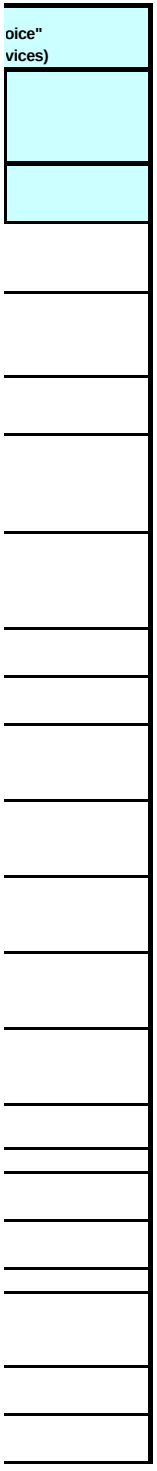
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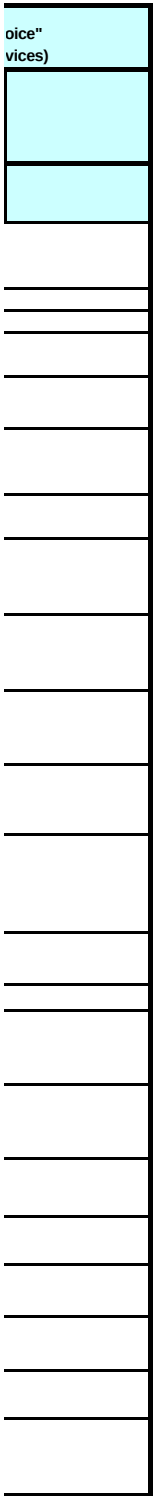
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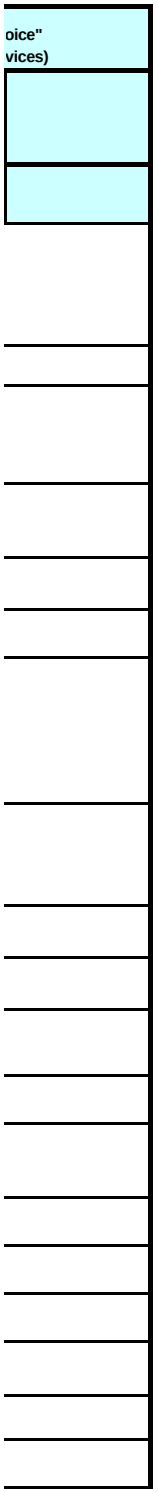
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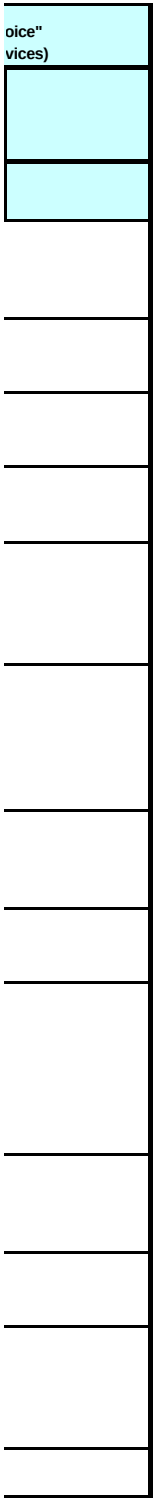
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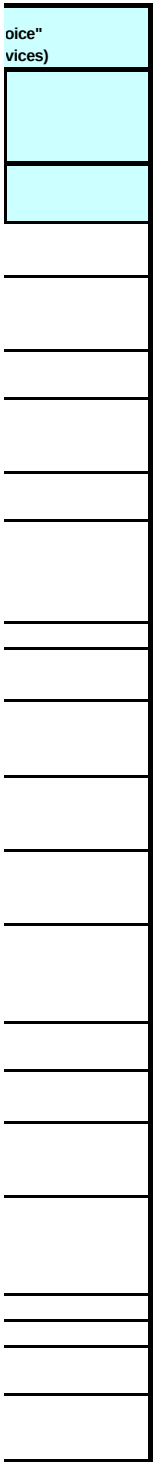
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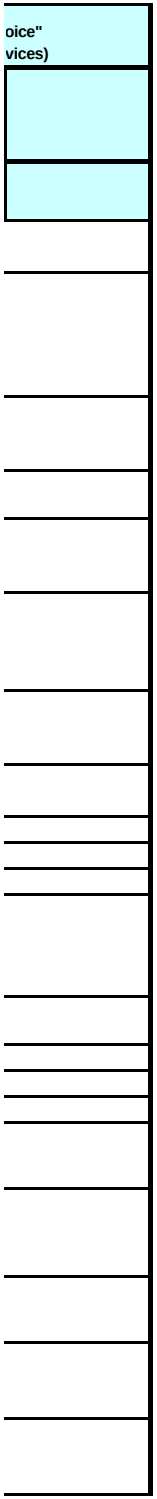
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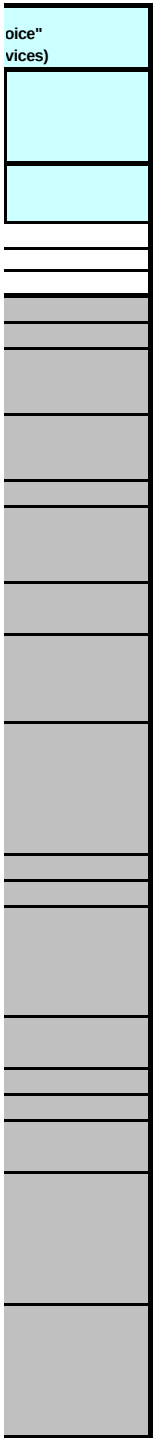
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