

Oracle Utilities Cloud Services
Database Changes Guide
For 20C Releases
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Oracle Utilities Cloud Services 20C Database Changes Guide

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Chapter 1

Introduction

This document describes changes in the database in the 20C release of Oracle Utilities cloud services. This includes:

- [Customer Cloud Service Database Changes](#)
- [Meter Solution Cloud Service Database Changes](#)
- [Work and Asset Cloud Service Database Changes](#)
- [Application Framework Database Changes](#)

Chapter 2

Customer Cloud Service Database Changes

This chapter provides lists of database changes in the 20C release of Oracle Utilities Customer Cloud Service. This includes:

- [New Tables](#)
- [New Indexes](#)
- [Modified Indexes](#)
- [New Columns](#)
- [Other Database Changes](#)

New Tables

Table_Name
C1_CS_REQ_SA
C1_CS_REQ_SA_CHAR
C1_CS_REQ_SA_CONTERM
C1_CS_REQ_SA_CONT_QTY
C1_CS_REQ_SA_COP
C1_CS_REQ_SA_COP_OVRD
C1_CS_REQ_SA_K
C1_CS_REQ_SA_LOG
C1_CS_REQ_SA_LOG_PARM
C1_CS_REQ_SA_MSG
C1_CS_REQ_SA_RCHG
C1_CS_REQ_SA_RS
C1_CS_REQ_SA_SP
C1_CS_REQ_SA_SP_CHAR

C1_CS_REQ_SA_SP_FA

C1_CS_REQ_SA_SP_K

C1_CS_REQ_SA_TOU_CONT_VAL

C1_CS_REQ_TYPE_ALG_CUST_CL

C1_CS_REQ_TYPE_ALG_PER_BUS

C1_MKT_PROV_CONFIG_OPT

C1_MKT_PROV_CONFIG_OPT_L

C1_PROV_CONFIG_OPT

C1_PROV_CONFIG_OPT_L

C1_PROV_CONFIG_SATY

C1_PROV_CONFIG_SATY_OVRD

C1_SPR_MKT_OPT

C1_SPR_MKT_OPT_SA

CI_SPR_CHAR

New Indexes

Table_Name	Index_Name
C1_CS_REQ_SA	C1T141P0
C1_CS_REQ_SA	C1T141S1
C1_CS_REQ_SA_CHAR	C1T143P0
C1_CS_REQ_SA_CHAR	C1T143S1
C1_CS_REQ_SA_CONTERM	C1T151P0
C1_CS_REQ_SA_CONT_QTY	C1T149P0
C1_CS_REQ_SA_COP	C1T153P0
C1_CS_REQ_SA_COP_OVRD	C1T154P0
C1_CS_REQ_SA_K	C1T142P0
C1_CS_REQ_SA_LOG	C1T156P0
C1_CS_REQ_SA_LOG	C1T156S1
C1_CS_REQ_SA_LOG	C1T156S2
C1_CS_REQ_SA_LOG_PARM	C1T157P0
C1_CS_REQ_SA_MSG	C1T155P0
C1_CS_REQ_SA_RCHG	C1T150P0

C1_CS_REQ_SA_RS	C1T148P0
C1_CS_REQ_SA_SP	C1T144P0
C1_CS_REQ_SA_SP_CHAR	C1T147P0
C1_CS_REQ_SA_SP_FA	C1T146P0
C1_CS_REQ_SA_SP_K	C1T145P0
C1_CS_REQ_SA_TOU_CONT_VAL	C1T152P0
C1_CS_REQ_TYPE_ALG_CUST_CL	C1C136P0
C1_CS_REQ_TYPE_ALG_PER_BUS	C1C135P0
C1_MKT_PROV_CONFIG_OPT	C1C129P0
C1_MKT_PROV_CONFIG_OPT	C1C129S1
C1_MKT_PROV_CONFIG_OPT_L	C1C130P0
C1_PROV_CONFIG_OPT	C1C127P0
C1_PROV_CONFIG_OPT	C1C127S1
C1_PROV_CONFIG_OPT_L	C1C128P0
C1_PROV_CONFIG_SATY	C1C132P0
C1_PROV_CONFIG_SATY_OVRD	C1C133P0
C1_SPR_MKT_OPT	C1C131P0
C1_SPR_MKT_OPT	C1C131S1
C1_SPR_MKT_OPT_SA	C1C134P0
CI_SPR_CHAR	XC311P0
CI_SPR_CHAR	XC311S1
CI_SATY_SARELTY	XC345S1
CI_SPR	XC339S2
CI_TNDR_CTL	XT251S4

Modified Indexes

Table_Name	Index_Name
CI_SA_REL	XM158S3

New Columns

Table_Name (View_Name)	Column_Name	Data Type	Data Length
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C1_CS_REQ_SA	ACCT_ID	CHAR	10
C1_CS_REQ_SA	BO_STATUS_CD	CHAR	12
C1_CS_REQ_SA	BO_STATUS_REASON_CD	VARCHAR	30
C1_CS_REQ_SA	BO_XML_DATA_AREA	XML	1073741824
C1_CS_REQ_SA	BUS_ACTIVITY_DESC	VARCHAR	250
C1_CS_REQ_SA	BUS_OBJ_CD	CHAR	30
C1_CS_REQ_SA	CHAR_PREM_ID	CHAR	10
C1_CS_REQ_SA	CIAC_REVIEW_DT	DATE	10
C1_CS_REQ_SA	CIS_DIVISION	CHAR	5
C1_CS_REQ_SA	CRE_DATE	DATE	26
C1_CS_REQ_SA	CS_REQ_ACCT_ID	CHAR	14
C1_CS_REQ_SA	CS_REQ_ERR_HNDL_FLG	CHAR	4
C1_CS_REQ_SA	CS_REQ_ID	CHAR	14
C1_CS_REQ_SA	CS_REQ_SA_ACT_FLG	CHAR	4
C1_CS_REQ_SA	CS_REQ_SA_ID	CHAR	14
C1_CS_REQ_SA	CURRENCY_CD	CHAR	3
C1_CS_REQ_SA	CUST_READ_FLG	CHAR	2
C1_CS_REQ_SA	END_DT	DATE	10
C1_CS_REQ_SA	ENRL_ID	CHAR	12
C1_CS_REQ_SA	EXPIRE_DT	DATE	10
C1_CS_REQ_SA	HIGH_BILL_AMT	NUMBER	15
C1_CS_REQ_SA	ILM_ARCH_SW	CHAR	1
C1_CS_REQ_SA	ILM_DT	DATE	10
C1_CS_REQ_SA	INT_CALC_DT	DATE	10
C1_CS_REQ_SA	NBR_PYMNT_PERIODS	NUMBER	3
C1_CS_REQ_SA	NB_APAY_FLG	CHAR	4
C1_CS_REQ_SA	NB_RULE_CD	CHAR	8
C1_CS_REQ_SA	OLD_ACCT_ID	VARCHAR	36
C1_CS_REQ_SA	RENEWAL_DT	DATE	10
C1_CS_REQ_SA	SA_DATA_AREA	CLOB	9999
C1_CS_REQ_SA	SA_ID	CHAR	10
C1_CS_REQ_SA	SA_REL_ID	CHAR	10
C1_CS_REQ_SA	SA_TYPE_CD	CHAR	8
C1_CS_REQ_SA	SA_VERSION	NUMBER	5

C1_CS_REQ_SA	SIC_CD	CHAR	8
C1_CS_REQ_SA	START_DT	DATE	10
C1_CS_REQ_SA	START_OPT_CD	CHAR	12
C1_CS_REQ_SA	STATUS_UPD_DATE	DATE	26
C1_CS_REQ_SA	STOP_REQED_BY	VARCHAR	50
C1_CS_REQ_SA	STOP_RSN_FLG	CHAR	4
C1_CS_REQ_SA	STRT_REQED_BY	VARCHAR	50
C1_CS_REQ_SA	STRT_RSN_FLG	CHAR	4
C1_CS_REQ_SA	TOT_TO_BILL_AMT	NUMBER	15
C1_CS_REQ_SA	VERSION	NUMBER	5
C1_CS_REQ_SA_CHAR	ADHOC_CHAR_VAL	VARCHAR	254
C1_CS_REQ_SA_CHAR	CHAR_TYPE_CD	CHAR	8
C1_CS_REQ_SA_CHAR	CHAR_VAL	CHAR	16
C1_CS_REQ_SA_CHAR	CHAR_VAL_FK1	VARCHAR	50
C1_CS_REQ_SA_CHAR	CHAR_VAL_FK2	VARCHAR	50
C1_CS_REQ_SA_CHAR	CHAR_VAL_FK3	VARCHAR	50
C1_CS_REQ_SA_CHAR	CHAR_VAL_FK4	VARCHAR	50
C1_CS_REQ_SA_CHAR	CHAR_VAL_FK5	VARCHAR	50
C1_CS_REQ_SA_CHAR	CS_REQ_SA_ID	CHAR	14
C1_CS_REQ_SA_CHAR	CS_REQ_SEQ_NUM	NUMBER	3
C1_CS_REQ_SA_CHAR	EFFDT	DATE	10
C1_CS_REQ_SA_CHAR	SRCH_CHAR_VAL	VARCHAR	50
C1_CS_REQ_SA_CHAR	VERSION	NUMBER	5
C1_CS_REQ_SA_CONTERM	BF_CD	CHAR	8
C1_CS_REQ_SA_CONTERM	CONTERM_TYPE_FLG	CHAR	2
C1_CS_REQ_SA_CONTERM	CS_REQ_SA_ID	CHAR	14
C1_CS_REQ_SA_CONTERM	CS_REQ_SEQ_NUM	NUMBER	3
C1_CS_REQ_SA_CONTERM	END_DT	DATE	10
C1_CS_REQ_SA_CONTERM	PCT_EXEMPT	NUMBER	7
C1_CS_REQ_SA_CONTERM	START_DT	DATE	10
C1_CS_REQ_SA_CONTERM	TAX_CERT	VARCHAR	35
C1_CS_REQ_SA_CONTERM	TAX_EX_TYPE_CD	CHAR	8
C1_CS_REQ_SA_CONTERM	TOU_GRP_CD	VARCHAR	30
C1_CS_REQ_SA_CONTERM	VAL	NUMBER	19

C1_CS_REQ_SA_CONTERM	VERSION	NUMBER	5
C1_CS_REQ_SA_CONT_QTY	CONT_QTY	NUMBER	17
C1_CS_REQ_SA_CONT_QTY	CONT_QTY_TYPE_CD	CHAR	8
C1_CS_REQ_SA_CONT_QTY	CS_REQ_SA_ID	CHAR	14
C1_CS_REQ_SA_CONT_QTY	CS_REQ_SEQ_NUM	NUMBER	3
C1_CS_REQ_SA_CONT_QTY	EFFDT	DATE	10
C1_CS_REQ_SA_CONT_QTY	VERSION	NUMBER	5
C1_CS_REQ_SA_COP	CONT_OPT_ID	CHAR	12
C1_CS_REQ_SA_COP	CS_REQ_SA_ID	CHAR	14
C1_CS_REQ_SA_COP	CS_REQ_SEQ_NUM	NUMBER	3
C1_CS_REQ_SA_COP	EFF_DATE	DATE	26
C1_CS_REQ_SA_COP	EXPIRE_DATE	DATE	26
C1_CS_REQ_SA_COP	SA_CONT_OPT_ID	CHAR	12
C1_CS_REQ_SA_COP	SA_COP_VERSION	NUMBER	5
C1_CS_REQ_SA_COP	VERSION	NUMBER	5
C1_CS_REQ_SA_COP_OVRD	CONT_OPT_EVT_ID	CHAR	12
C1_CS_REQ_SA_COP_OVRD	CS_REQ_SA_ID	CHAR	14
C1_CS_REQ_SA_COP_OVRD	CS_REQ_SEQ_NUM	NUMBER	3
C1_CS_REQ_SA_COP_OVRD	EFF_STATUS	CHAR	1
C1_CS_REQ_SA_COP_OVRD	OVRD_DATE	DATE	26
C1_CS_REQ_SA_COP_OVRD	SA_CONT_OPT_ID	CHAR	12
C1_CS_REQ_SA_COP_OVRD	SEQ_NUM	NUMBER	3
C1_CS_REQ_SA_COP_OVRD	VERSION	NUMBER	5
C1_CS_REQ_SA_K	CS_REQ_SA_ID	CHAR	14
C1_CS_REQ_SA_K	ENV_ID	NUMBER	6
C1_CS_REQ_SA_LOG	ADHOC_CHAR_VAL	VARCHAR	254
C1_CS_REQ_SA_LOG	BO_STATUS_CD	CHAR	12
C1_CS_REQ_SA_LOG	BO_STATUS_REASON_CD	VARCHAR	30
C1_CS_REQ_SA_LOG	CHAR_TYPE_CD	CHAR	8
C1_CS_REQ_SA_LOG	CHAR_VAL	CHAR	16
C1_CS_REQ_SA_LOG	CHAR_VAL_FK1	VARCHAR	50
C1_CS_REQ_SA_LOG	CHAR_VAL_FK2	VARCHAR	50
C1_CS_REQ_SA_LOG	CHAR_VAL_FK3	VARCHAR	50
C1_CS_REQ_SA_LOG	CHAR_VAL_FK4	VARCHAR	50

C1_CS_REQ_SA_LOG	CHAR_VAL_FK5	VARCHAR	50
C1_CS_REQ_SA_LOG	CS_REQ_SA_ID	CHAR	14
C1_CS_REQ_SA_LOG	DESCRLONG	VARCHAR	4000
C1_CS_REQ_SA_LOG	LOG_DATE	DATE	26
C1_CS_REQ_SA_LOG	LOG_ENTRY_TYPE_FLG	CHAR	4
C1_CS_REQ_SA_LOG	MESSAGE_CAT_NBR	NUMBER	5
C1_CS_REQ_SA_LOG	MESSAGE_NBR	NUMBER	5
C1_CS_REQ_SA_LOG	SEQNO	NUMBER	5
C1_CS_REQ_SA_LOG	USER_ID	CHAR	8
C1_CS_REQ_SA_LOG	VERSION	NUMBER	5
C1_CS_REQ_SA_LOG_PARM	CS_REQ_SA_ID	CHAR	14
C1_CS_REQ_SA_LOG_PARM	MSG_PARM_TYP_FLG	CHAR	4
C1_CS_REQ_SA_LOG_PARM	MSG_PARM_VAL	VARCHAR	2000
C1_CS_REQ_SA_LOG_PARM	PARM_SEQ	NUMBER	3
C1_CS_REQ_SA_LOG_PARM	SEQNO	NUMBER	5
C1_CS_REQ_SA_LOG_PARM	VERSION	NUMBER	5
C1_CS_REQ_SA_MSG	BILL_MSG_CD	CHAR	4
C1_CS_REQ_SA_MSG	BILL_MSG_TYPE_FLG	CHAR	2
C1_CS_REQ_SA_MSG	CS_REQ_SA_ID	CHAR	14
C1_CS_REQ_SA_MSG	CS_REQ_SEQ_NUM	NUMBER	3
C1_CS_REQ_SA_MSG	VERSION	NUMBER	5
C1_CS_REQ_SA_RCHG	CS_REQ_SA_ID	CHAR	14
C1_CS_REQ_SA_RCHG	CS_REQ_SEQ_NUM	NUMBER	3
C1_CS_REQ_SA_RCHG	CURRENCY_CD	CHAR	3
C1_CS_REQ_SA_RCHG	EFFDT	DATE	10
C1_CS_REQ_SA_RCHG	RCR_CHG_AMT	NUMBER	15
C1_CS_REQ_SA_RCHG	VERSION	NUMBER	5
C1_CS_REQ_SA_RS	CS_REQ_SA_ID	CHAR	14
C1_CS_REQ_SA_RS	CS_REQ_SEQ_NUM	NUMBER	3
C1_CS_REQ_SA_RS	EFFDT	DATE	10
C1_CS_REQ_SA_RS	RS_CD	CHAR	8
C1_CS_REQ_SA_RS	VERSION	NUMBER	5
C1_CS_REQ_SA_SP	CS_REQ_SA_ID	CHAR	14
C1_CS_REQ_SA_SP	CS_REQ_SA_SP_ID	CHAR	14

C1_CS_REQ_SA_SP	SA_ID	CHAR	10
C1_CS_REQ_SA_SP	SA_SP_VERSION	NUMBER	5
C1_CS_REQ_SA_SP	SP_ID	CHAR	10
C1_CS_REQ_SA_SP	START_DATE	DATE	26
C1_CS_REQ_SA_SP	START_MR_ID	CHAR	12
C1_CS_REQ_SA_SP	STOP_DATE	DATE	26
C1_CS_REQ_SA_SP	STOP_MR_ID	CHAR	12
C1_CS_REQ_SA_SP	USAGE_FLG	CHAR	2
C1_CS_REQ_SA_SP	USE_PCT	NUMBER	3
C1_CS_REQ_SA_SP	VERSION	NUMBER	5
C1_CS_REQ_SA_SP_CHAR	ADHOC_CHAR_VAL	VARCHAR	254
C1_CS_REQ_SA_SP_CHAR	CHAR_TYPE_CD	CHAR	8
C1_CS_REQ_SA_SP_CHAR	CHAR_VAL	CHAR	16
C1_CS_REQ_SA_SP_CHAR	CHAR_VAL_FK1	VARCHAR	50
C1_CS_REQ_SA_SP_CHAR	CHAR_VAL_FK2	VARCHAR	50
C1_CS_REQ_SA_SP_CHAR	CHAR_VAL_FK3	VARCHAR	50
C1_CS_REQ_SA_SP_CHAR	CHAR_VAL_FK4	VARCHAR	50
C1_CS_REQ_SA_SP_CHAR	CHAR_VAL_FK5	VARCHAR	50
C1_CS_REQ_SA_SP_CHAR	CS_REQ_SA_SP_ID	CHAR	14
C1_CS_REQ_SA_SP_CHAR	CS_REQ_SEQ_NUM	NUMBER	3
C1_CS_REQ_SA_SP_CHAR	EFFDT	DATE	10
C1_CS_REQ_SA_SP_CHAR	VERSION	NUMBER	5
C1_CS_REQ_SA_SP_FA	CS_REQ_SA_SP_ID	CHAR	14
C1_CS_REQ_SA_SP_FA	CS_REQ_SEQ_NUM	NUMBER	3
C1_CS_REQ_SA_SP_FA	FA_ID	CHAR	10
C1_CS_REQ_SA_SP_FA	SA_ID	CHAR	10
C1_CS_REQ_SA_SP_FA	SA_SP_FA_TYPE_FLG	CHAR	2
C1_CS_REQ_SA_SP_FA	SP_ID	CHAR	10
C1_CS_REQ_SA_SP_FA	VERSION	NUMBER	5
C1_CS_REQ_SA_SP_K	CS_REQ_SA_SP_ID	CHAR	14
C1_CS_REQ_SA_SP_K	ENV_ID	NUMBER	6
C1_CS_REQ_SA_TOU_CONT_VAL	BF_CD	CHAR	8
C1_CS_REQ_SA_TOU_CONT_VAL	CONTERM_TYPE_FLG	CHAR	2
C1_CS_REQ_SA_TOU_CONT_VAL	CS_REQ_SA_ID	CHAR	14

C1_CS_REQ_SA_TOU_CONT_VAL	CS_REQ_SEQ_NUM	NUMBER	3
C1_CS_REQ_SA_TOU_CONT_VAL	SEQ_NUM	NUMBER	3
C1_CS_REQ_SA_TOU_CONT_VAL	START_DT	DATE	10
C1_CS_REQ_SA_TOU_CONT_VAL	TOU_CD	VARCHAR	30
C1_CS_REQ_SA_TOU_CONT_VAL	TOU_GRP_CD	VARCHAR	30
C1_CS_REQ_SA_TOU_CONT_VAL	VAL	NUMBER	19
C1_CS_REQ_SA_TOU_CONT_VAL	VERSION	NUMBER	5
C1_CS_REQ_TYPE	CS_REQ_SA_BUS_OBJ_CD	CHAR	30
C1_CS_REQ_TYPE_ALG_CUST_CL	ALG_CD	CHAR	12
C1_CS_REQ_TYPE_ALG_CUST_CL	CS_REQ_ALG_ENTITY_FLG	CHAR	4
C1_CS_REQ_TYPE_ALG_CUST_CL	CS_REQ_TYPE_CD	VARC	30
C1_CS_REQ_TYPE_ALG_CUST_CL	CUST_CL_CD	CHAR	8
C1_CS_REQ_TYPE_ALG_CUST_CL	SEQ_NUM	NUMB	3
C1_CS_REQ_TYPE_ALG_CUST_CL	VERSION	NUMB	5
C1_CS_REQ_TYPE_ALG_PER_BUS	ALG_CD	CHAR	12
C1_CS_REQ_TYPE_ALG_PER_BUS	CS_REQ_ALG_ENTITY_FLG	CHAR	4
C1_CS_REQ_TYPE_ALG_PER_BUS	CS_REQ_TYPE_CD	VARC	30
C1_CS_REQ_TYPE_ALG_PER_BUS	PER_OR_BUS_FLG	CHAR	2
C1_CS_REQ_TYPE_ALG_PER_BUS	SEQ_NUM	NUMB	3
C1_CS_REQ_TYPE_ALG_PER_BUS	VERSION	NUMB	5
C1_MKT_PROV_CONFIG_OPT	BO_XML_DATA_AREA	XML	1073741824
C1_MKT_PROV_CONFIG_OPT	BUS_OBJ_CD	CHAR	30
C1_MKT_PROV_CONFIG_OPT	C1_MKT_CD	VARCHAR	30
C1_MKT_PROV_CONFIG_OPT	C1_MKT_REL_TYPE_FLG	CHAR	4
C1_MKT_PROV_CONFIG_OPT	CIS_DIVISION	CHAR	5
C1_MKT_PROV_CONFIG_OPT	MKT_SPR_CD	CHAR	0
C1_MKT_PROV_CONFIG_OPT	NT_XID_CD	CHAR	30
C1_MKT_PROV_CONFIG_OPT	PROV_CONFIG_OPT_CD	VARCHAR	30
C1_MKT_PROV_CONFIG_OPT	SA_REL_TYPE_CD	CHAR	8
C1_MKT_PROV_CONFIG_OPT	VERSION	NUMBER	5
C1_MKT_PROV_CONFIG_OPT_L	C1_MKT_CD	VARCHAR	30
C1_MKT_PROV_CONFIG_OPT_L	DESCR100	VARCHAR	100
C1_MKT_PROV_CONFIG_OPT_L	LANGUAGE_CD	CHAR	3
C1_MKT_PROV_CONFIG_OPT_L	MKT_SPR_CD	CHAR	0

C1_MKT_PROV_CONFIG_OPT_L	PROV_CONFIG_OPT_CD	VARCHAR	30
C1_MKT_PROV_CONFIG_OPT_L	SA_REL_TYPE_CD	CHAR	8
C1_MKT_PROV_CONFIG_OPT_L	VERSION	NUMBER	5
C1_PROV_CONFIG_OPT	BILL_REL_FLG	CHAR	4
C1_PROV_CONFIG_OPT	BO_XML_DATA_AREA	XML	1073741824
C1_PROV_CONFIG_OPT	BUS_OBJ_CD	CHAR	30
C1_PROV_CONFIG_OPT	CHGS_BATCH_CD	CHAR	8
C1_PROV_CONFIG_OPT	CNSMP_BATCH_CD	CHAR	8
C1_PROV_CONFIG_OPT	PAY_REL_FLG	CHAR	4
C1_PROV_CONFIG_OPT	PAY_SPR_ALG_CD	CHAR	12
C1_PROV_CONFIG_OPT	PROV_CONFIG_OPT_CD	VARCHAR	30
C1_PROV_CONFIG_OPT	VERSION	NUMBER	5
C1_PROV_CONFIG_OPT	XFER_AR_ALG_CD	CHAR	12
C1_PROV_CONFIG_OPT_L	DESCR100	VARCHAR	100
C1_PROV_CONFIG_OPT_L	DESCRLONG	VARCHAR	4000
C1_PROV_CONFIG_OPT_L	LANGUAGE_CD	CHAR	3
C1_PROV_CONFIG_OPT_L	PROV_CONFIG_OPT_CD	VARCHAR	30
C1_PROV_CONFIG_OPT_L	VERSION	NUMBER	5
C1_PROV_CONFIG_SATY	CIS_DIVISION	CHAR	5
C1_PROV_CONFIG_SATY	INITIAL_SATY_SW	CHAR	1
C1_PROV_CONFIG_SATY	PROV_CONFIG_OPT_CD	VARCHAR	30
C1_PROV_CONFIG_SATY	SA_REL_TYPE_CD	CHAR	8
C1_PROV_CONFIG_SATY	SA_TYPE_CD	CHAR	8
C1_PROV_CONFIG_SATY	START_OPT_CD	CHAR	12
C1_PROV_CONFIG_SATY	SUBSA_CIS_DIVISION	CHAR	5
C1_PROV_CONFIG_SATY	SUBSA_SA_TYPE_CD	CHAR	8
C1_PROV_CONFIG_SATY	VERSION	NUMBER	5
C1_PROV_CONFIG_SATY_OVRD	CIS_DIVISION	CHAR	5
C1_PROV_CONFIG_SATY_OVRD	INITIAL_SATY_SW	CHAR	1
C1_PROV_CONFIG_SATY_OVRD	OVRD_SUBSA_CIS_DIVISION	CHAR	0
C1_PROV_CONFIG_SATY_OVRD	OVRD_SUBSA_SA_TYPE_CD	CHAR	0
C1_PROV_CONFIG_SATY_OVRD	PROV_CONFIG_OPT_CD	VARCHAR	30
C1_PROV_CONFIG_SATY_OVRD	SA_REL_TYPE_CD	CHAR	8
C1_PROV_CONFIG_SATY_OVRD	SA_TYPE_CD	CHAR	8

C1_PROV_CONFIG_SATY_OVRD	SPR_CD	CHAR	12
C1_PROV_CONFIG_SATY_OVRD	START_OPT_CD	CHAR	12
C1_PROV_CONFIG_SATY_OVRD	VERSION	NUMBER	5
C1_SPR_MKT_OPT	BO_XML_DATA_AREA	XML	1073741824
C1_SPR_MKT_OPT	BUS_OBJ_CD	CHAR	30
C1_SPR_MKT_OPT	C1_MKT_CD	VARCHAR	30
C1_SPR_MKT_OPT	END_DT	DATE	10
C1_SPR_MKT_OPT	MKT_SPR_CD	CHAR	0
C1_SPR_MKT_OPT	PROV_CONFIG_OPT_CD	VARCHAR	30
C1_SPR_MKT_OPT	SA_REL_TYPE_CD	CHAR	8
C1_SPR_MKT_OPT	SPR_CD	CHAR	12
C1_SPR_MKT_OPT	SPR_MKT_OPT_DEFAULT_SW	CHAR	1
C1_SPR_MKT_OPT	SPR_MKT_OPT_STATUS_FLG	CHAR	4
C1_SPR_MKT_OPT	START_DT	DATE	10
C1_SPR_MKT_OPT	VERSION	NUMBER	5
C1_SPR_MKT_OPT_SA	C1_MKT_CD	VARCHAR	30
C1_SPR_MKT_OPT_SA	MKT_SPR_CD	CHAR	0
C1_SPR_MKT_OPT_SA	PROV_CONFIG_OPT_CD	VARCHAR	30
C1_SPR_MKT_OPT_SA	SA_ID	CHAR	10
C1_SPR_MKT_OPT_SA	SA_REL_TYPE_CD	CHAR	8
C1_SPR_MKT_OPT_SA	SPR_CD	CHAR	12
C1_SPR_MKT_OPT_SA	SPR_MKT_OPT_SA_ROLE_FLG	CHAR	4
C1_SPR_MKT_OPT_SA	VERSION	NUMBER	5
CI_CHAR_TYPE	FLD_NAME	CHAR	30
CI_SATY_SARELTY	BO_DATA_AREA	CLOB	1073741824
CI_SATY_SARELTY	BUS_OBJ_CD	CHAR	30
CI_SA_REL	C1_MKT_CD	VARCHAR	30
CI_SA_REL	MKT_SPR_CD	CHAR	0
CI_SA_REL	PROV_CONFIG_OPT_CD	VARCHAR	30
CI_SA_REL_TYPE	SPR_MODEL_FLG	CHAR	4
CI_SPR	BO_DATA_AREA	CLOB	1073741824
CI_SPR	BUS_OBJ_CD	CHAR	30
CI_SPR	SPR_EXT_ID	VARCHAR	30
CI_SPR_CHAR	ADHOC_CHAR_VAL	VARCHAR	254

CI_SPR_CHAR	CHAR_TYPE_CD	CHAR	8
CI_SPR_CHAR	CHAR_VAL	CHAR	16
CI_SPR_CHAR	CHAR_VAL_FK1	VARCHAR	50
CI_SPR_CHAR	CHAR_VAL_FK2	VARCHAR	50
CI_SPR_CHAR	CHAR_VAL_FK3	VARCHAR	50
CI_SPR_CHAR	CHAR_VAL_FK4	VARCHAR	50
CI_SPR_CHAR	CHAR_VAL_FK5	VARCHAR	50
CI_SPR_CHAR	EFFDT	DATE	10
CI_SPR_CHAR	SPR_CD	CHAR	12
CI_SPR_CHAR	SRCH_CHAR_VAL	VARCHAR	50
CI_SPR_CHAR	VERSION	NUMBER	5
CI_SS_OPT_L	DESCRLONG	VARCHAR	4000
X1_BI_ACTIVITY_VW	ILM_DATE	DATE	7

Other Database Changes

This release of Oracle Utilities Customer Cloud Service also includes the following database changes:

- [Meter Solution Cloud Service Database Changes](#)
- [Work and Asset Cloud Service Database Changes](#)
- [Application Framework Database Changes](#)

Chapter 3

Meter Solution Cloud Service Database Changes

This chapter provides lists of database changes in the 20C release of Oracle Utilities Meter Solution Cloud Service. This includes:

- [New Tables](#)
- [New Columns](#)
- [Updated Columns](#)
- [Added Primary Keys](#)
- [New Indexes](#)
- [Index Changes](#)
- [Other Database Changes](#)

New Tables

Table_Name

F1_ARC_TBL_PARTITION_HIST

New Columns

Table_Name	Column_Name	Data Type	Data Length
D1_MDSI	VERSION	NUMBER	5,0
D1_MDSS	VERSION	NUMBER	5,0
F1_ARC_TBL_PARTITION_HIST	TBL_OWNER	VARCHAR2	128
F1_ARC_TBL_PARTITION_HIST	TBL_NAME	CHAR	30

F1_ARC_TBL_PARTITION_HIST	PART_OR_SUBPART_NAME	VARCHAR2	128
F1_ARC_TBL_PARTITION_HIST	CRE_DTTM	DATE	
F1_ARC_TBL_PARTITION_HIST	PARTITION_YEAR	NUMBER	4,0
F1_ARC_TBL_PARTITION_HIST	PARTITION_MON	VARCHAR2	3
F1_ARC_TBL_PARTITION_HIST	RETENTION_OR_SUBRET_DAYS	NUMBER	5,0
F1_ARC_TBL_PARTITION_HIST	ARCHIVE_METHOD_FLG	CHAR	4
F1_ARC_TBL_PARTITION_HIST	ARCHIVE_DTTM	DATE	
F1_ARC_TBL_PARTITION_HIST	ARCHIVE_FILE_NAME	VARCHAR2	128
F1_ARC_TBL_PARTITION_HIST	DROP_APPROVAL_FLG	CHAR	4
F1_ARC_TBL_PARTITION_HIST	DROP_PART_STAT_FLG	CHAR	4
F1_ARC_TBL_PARTITION_HIST	APPROVAL_USER_ID	CHAR	8
F1_ARC_TBL_PARTITION_HIST	APPROVAL_DROP_DTTM	DATE	
F1_ARC_TBL_PARTITION_HIST	ACTUAL_DROP_DTTM	DATE	
F1_ARC_TBL_PARTITION_HIST	SCHED_DROP_DTTM	DATE	
F1_ARC_TBL_PARTITION_HIST	REPEAT_FLG	CHAR	4
F1_ARC_TBL_PARTITION_HIST	REPEAT_DTTM	DATE	
F1_ARC_TBL_PARTITION_HIST	ESTIMATED_SIZE_GB	NUMBER	9,3
F1_ARC_TBL_PARTITION_HIST	REPEAT_USER_ID	CHAR	8

Updated Columns

Table_Name	Column_Name	Old Data Types	New Data Type
D1_CONTACT_EMAIL	EMAIL_VALUE	VARCHAR2(70)	VARCHAR2(254)

Added Primary Keys

Table_Name	Primary_Key	Columns
F1_ARC_TBL_PARTITION_HIST	F1M632P0	TBL_OWNER, TBL_NAME, PART_OR_SUBPART_NAME, CRE_DTTM

New Indexes

Table_Name	Index_Name
F1_ARC_TBL_PARTITION_HIST	F1M632P0

Index Changes

Table_Name	Index_Name	Old Columns	New Data Type
D1_INIT_MSRMT_DATA	D1T304S1	MEASR_COMP_ID, BO_STATUS_CD, BUS_OBJ_CD,D1_TO_DTTM, D1_FROM_DTTM	MEASR_COMP_ID, D1_TO_DTTM

Note: Within this upgrade the Initial Measurement Data secondary index columns have been changed as outlined in the table above.

Please be aware that implementing this change could take longer than expected depending on the amount of data present in the Initial Measurement Data table.

To manually create this index outside of the upgrade process, Oracle recommends you use the following steps:

1. CREATE INDEX ZZ_D1T304S1 ON D1_INIT_MSRMT_DATA (MEASR_COMP_ID,D1_TO_DTTM);
Include tablespace, compression, partitioning, and parallelism as required.
2. ALTER INDEX D1T304S1 RENAME TO ZZ_D1T304S1_ORIG;
3. ALTER INDEX ZZ_D1T304S1 RENAME TO D1T304S1;
4. ALTER INDEX D1T304S1 NOPARALLEL;
(Optional: If parallelism was used to create the index)
5. DROP INDEX ZZ_D1T304S1_ORIG;

Once the index is created with the new columns the upgrade process will not recreate it again.

Other Database Changes

This release of Oracle Utilities Meter Solution Cloud Service also includes the following database changes:

- [Work and Asset Cloud Service Database Changes](#)
- [Application Framework Database Changes](#)

Chapter 4

Work and Asset Cloud Service Database Changes

This chapter provides lists of database changes in the 20C release of Oracle Utilities Work and Asset Cloud Service. This includes:

- [New Tables](#)
- [New Indexes](#)
- [New Columns](#)
- [Column Changes](#)
- [Dropped Indexes](#)
- [Other Database Changes](#)

Note: The new tables, new indexes, new columns, modified columns, and dropped columns described in this chapter, as well as the [Application Framework Database Changes](#), also apply to Oracle Utilities Operational Device Cloud Service.

New Tables

Table_Name	Maintenance Object	Table Role Flag
W1_TIMEKEEPER	W1-TIMEKPR	PRIM
W1_TIMEKEEPER_CHAR	W1-TIMEKPR	CHLD
W1_TIMEKEEPER_EMP	W1-TIMEKPR	CHLD
W1_TIMEKEEPER_L	W1-TIMEKPR	CHLD
W1_TIMEKEEPER_LOG	W1-TIMEKPR	CHLD
W1_TIMEKEEPER_LOG_PARM	W1-TIMEKPR	CHLD

New Indexes

Table_Name	Index_Name	Column_Name
W1_ASSET	W1M007S8	MAINT_SPEC_CD
W1_MAT_REQ_HEADER	W1T378S2	MAT_REQ_HEADER_ID
W1_MAT_REQ_HEADER	W1T378S2	MAT_REQ_HEADER_NUM
W1_PI_HEADER	W1T319S2	PI_HEADER_ID
W1_PI_HEADER	W1T319S2	PI_HEADER_NUM
W1_TIMEKEEPER	W1C948P0	TIMEKEEPER_CD
W1_TIMEKEEPER_CHAR	W1C950P0	CHAR_TYPE_CD
W1_TIMEKEEPER_CHAR	W1C950P0	SEQ_NUM
W1_TIMEKEEPER_CHAR	W1C950P0	TIMEKEEPER_CD
W1_TIMEKEEPER_EMP	W1C949P0	EMPLOYEE_ID
W1_TIMEKEEPER_EMP	W1C949P0	TIMEKEEPER_CD
W1_TIMEKEEPER_L	W1C951P0	LANGUAGE_CD
W1_TIMEKEEPER_L	W1C951P0	TIMEKEEPER_CD
W1_TIMEKEEPER_LOG	W1C952P0	SEQNO
W1_TIMEKEEPER_LOG	W1C952P0	TIMEKEEPER_CD
W1_TIMEKEEPER_LOG_PARM	W1C953P0	PARM_SEQ
W1_TIMEKEEPER_LOG_PARM	W1C953P0	SEQNO
W1_TIMEKEEPER_LOG_PARM	W1C953P0	TIMEKEEPER_CD

New Columns

Table_Name	Column_Name	Data Type	Data Length
W1_MAT_REQ_HEADER	MAT_REQ_HEADER_NUM	VARCHAR2	14
W1_PI_HEADER	PI_HEADER_NUM	VARCHAR2	14
W1_TIMEKEEPER	BO_DATA_AREA	CLOB	4000
W1_TIMEKEEPER	BO_STATUS_CD	CHAR	12
W1_TIMEKEEPER	BO_STATUS_REASON_CD	VARCHAR2	30
W1_TIMEKEEPER	BUS_OBJ_CD	CHAR	30
W1_TIMEKEEPER	CRE_DTTM	DATE	7
W1_TIMEKEEPER	STATUS_UPD_DTTM	DATE	7

W1_TIMEKEEPER	TIMEKEEPER_CD	VARCHAR2	30
W1_TIMEKEEPER	USER_ID	CHAR	8
W1_TIMEKEEPER	VERSION	NUMBER	22
W1_TIMEKEEPER_CHAR	ADHOC_CHAR_VAL	VARCHAR2	254
W1_TIMEKEEPER_CHAR	CHAR_TYPE_CD	CHAR	8
W1_TIMEKEEPER_CHAR	CHAR_VAL	CHAR	16
W1_TIMEKEEPER_CHAR	CHAR_VAL_FK1	VARCHAR2	50
W1_TIMEKEEPER_CHAR	CHAR_VAL_FK2	VARCHAR2	50
W1_TIMEKEEPER_CHAR	CHAR_VAL_FK3	VARCHAR2	50
W1_TIMEKEEPER_CHAR	CHAR_VAL_FK4	VARCHAR2	50
W1_TIMEKEEPER_CHAR	CHAR_VAL_FK5	VARCHAR2	50
W1_TIMEKEEPER_CHAR	SEQ_NUM	NUMBER	22
W1_TIMEKEEPER_CHAR	SRCH_CHAR_VAL	VARCHAR2	50
W1_TIMEKEEPER_CHAR	TIMEKEEPER_CD	VARCHAR2	30
W1_TIMEKEEPER_CHAR	VERSION	NUMBER	22
W1_TIMEKEEPER_EMP	EMPLOYEE_ID	CHAR	12
W1_TIMEKEEPER_EMP	TIMEKEEPER_CD	VARCHAR2	30
W1_TIMEKEEPER_EMP	VERSION	NUMBER	22
W1_TIMEKEEPER_L	DESCR100	VARCHAR2	100
W1_TIMEKEEPER_L	LANGUAGE_CD	CHAR	3
W1_TIMEKEEPER_L	TIMEKEEPER_CD	VARCHAR2	30
W1_TIMEKEEPER_L	VERSION	NUMBER	22
W1_TIMEKEEPER_LOG	ADHOC_CHAR_VAL	VARCHAR2	254
W1_TIMEKEEPER_LOG	BO_STATUS_CD	CHAR	12
W1_TIMEKEEPER_LOG	BO_STATUS_REASON_CD	VARCHAR2	30
W1_TIMEKEEPER_LOG	CHAR_TYPE_CD	CHAR	8
W1_TIMEKEEPER_LOG	CHAR_VAL	CHAR	16
W1_TIMEKEEPER_LOG	CHAR_VAL_FK1	VARCHAR2	50
W1_TIMEKEEPER_LOG	CHAR_VAL_FK2	VARCHAR2	50
W1_TIMEKEEPER_LOG	CHAR_VAL_FK3	VARCHAR2	50
W1_TIMEKEEPER_LOG	CHAR_VAL_FK4	VARCHAR2	50
W1_TIMEKEEPER_LOG	CHAR_VAL_FK5	VARCHAR2	50
W1_TIMEKEEPER_LOG	DESCRLONG	VARCHAR2	4000
W1_TIMEKEEPER_LOG	LOG_DTTM	DATE	7

W1_TIMEKEEPER_LOG	LOG_ENTRY_TYPE_FLG	CHAR	4
W1_TIMEKEEPER_LOG	MESSAGE_CAT_NBR	NUMBER	22
W1_TIMEKEEPER_LOG	MESSAGE_NBR	NUMBER	22
W1_TIMEKEEPER_LOG	SEQNO	NUMBER	22
W1_TIMEKEEPER_LOG	TIMEKEEPER_CD	VARCHAR2	30
W1_TIMEKEEPER_LOG	USER_ID	CHAR	8
W1_TIMEKEEPER_LOG	VERSION	NUMBER	22
W1_TIMEKEEPER_LOG_PARM	F1_MSG_PARM_VLONG	VARCHAR2	1000
W1_TIMEKEEPER_LOG_PARM	MSG_PARM_TYP_FLG	CHAR	4
W1_TIMEKEEPER_LOG_PARM	PARM_SEQ	NUMBER	22
W1_TIMEKEEPER_LOG_PARM	SEQNO	NUMBER	22
W1_TIMEKEEPER_LOG_PARM	TIMEKEEPER_CD	VARCHAR2	30
W1_TIMEKEEPER_LOG_PARM	VERSION	NUMBER	22

Column Changes

Table Name	Column Name	New Precision	New Scale	Old Precision	Old Scale
W1_ACTIVITY_ASSET	PERCENTAGE	8	5	3	0
W1_ACTIVITY_COST_CENTER	PERCENTAGE	8	5	3	0
W1_INVOICE_HEADER_COST_CENTER	PERCENTAGE	8	5	3	0
W1_INVOICE_LINE_COST_CENTER	PERCENTAGE	8	5	3	0
W1_MAT_REQ_HEADER_COST_CENTER	PERCENTAGE	8	5	3	0
W1_MAT_RET_HEADER_COST_CENTER	PERCENTAGE	8	5	3	0
W1_NODE_COST_CENTER	PERCENTAGE	8	5	3	0
W1_ODC_DTL_COST	PERCENTAGE	8	5	3	0
W1_PO_HEADER_COST_CENTER	PERCENTAGE	8	5	3	0
W1_PO_LINE_COST_CENTER	PERCENTAGE	8	5	3	0
W1_PROJECT_COST_CENTER	PERCENTAGE	8	5	3	0
W1_PR_HDR_COST_CTR	PERCENTAGE	8	5	3	0
W1_PR_LINE_COST	PERCENTAGE	8	5	3	0
W1_TIMSHEETDTL_COST_CTR	PERCENTAGE	8	5	3	0
W1_TMPL_ACT_COST_CENTER	PERCENTAGE	8	5	3	0
W1_TMPL_ACT_COST_DIST	PERCENTAGE	8	5	3	0

W1_WO_COST_CENTER	PERCENTAGE	8	5	3	0
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Dropped Indexes

Table_Name	Index_Name
W1_ACTIVITY_IDENTIFIER	W1T247S1
W1_ACTIVITY_TYPE_IDENTIFIER	W1C242S1
W1_ACT_RESRC_REQMT_IDENTIFIER	W1T375S1
W1_APPROVAL_PROF_IDENTIFIER	W1C560S1
W1_APPROVAL_REQ_IDENTIFIER	W1T294S1
W1_ASSET_IDENTIFIER	W1M014S1
W1_BC_HEADER_IDENTIFIER	W1T349S1
W1_BUYER_IDENTIFIER	W1C677S1
W1_CONFIG_IDENTIFIER	W1M487S1
W1_CONFIG_RPT_IDENTIFIER	W1M494S1
W1_COST_CENTER_IDENTIFIER	W1M708S2
W1_CREW_IDENTIFIER	W1M519S1
W1_DOCUMENT_IDENTIFIER	W1M580S2
W1_EMPLOYEE_IDENTIFIER	W1M505S1
W1_EU_IDENTIFIER	W1M513S1
W1_EXPEDITE_IDENTIFIER	W1T499S1
W1_EXPENSE_CD_IDENTIFIER	W1M709S2
W1_INVOICE_HEADER_IDENTIFIER	W1T503S1
W1_INVOICE_LINE_IDENTIFIER	W1T527S2
W1_MAINT_EVENT_IDENTIFIER	W1M716S1
W1_MAINT_SCHEDULE_IDENTIFIER	W1M655S1
W1_MAINT_TRIGGER_IDENTIFIER	W1M701S1
W1_MANUFACTURER_IDENTIFIER	W1C225S1
W1_MAT_DISP_IDENTIFIER	W1T459S1
W1_MEASUREMENT_TYPE_IDENTIFIER	W1C522S1
W1_ODC_IDENTIFIER	W1T335S1
W1_PROJECT_IDENTIFIER	W1M603S1
W1_PR_HDR_IDENTIFIER	W1T436S2

W1_RCPT_HDR_IDENTIFIER	W1T462S1
W1_RESRC_TYPE_IDENTIFIER	W1M558S1
W1_SPECIFICATION_IDENTIFIER	W1C229S1
W1_STOCK_ITEM_DTL_IDENTIFIER	W1M712S1
W1_SVC_HIST_IDENTIFIER	W1M280S1
W1_TIMESHEET_IDENTIFIER	W1M590S1
W1_TMPL_ACT_IDENTIFIER	W1M621S1
W1_TMPL_ACT_RSRC_IDENTIFIER	W1M629S1
W1_TMPL_WO_IDENTIFIER	W1M612S1
W1_VENDOR_IDENTIFIER	W1M635S2
W1_VENDOR_LOC_IDENTIFIER	W1M639S2
W1_WARRANTY_IDENTIFIER	W1M525S1
W1_WORK_LOC_IDENTIFIER	W1M725S1
W1_WORK_REQ_IDENTIFIER	W1T299S1
W1_WO_IDENTIFIER	W1T233S1

Other Database Changes

This release of Oracle Utilities Work and Asset Cloud Service also includes the following database changes:

- [Application Framework Database Changes](#)

Chapter 5

Application Framework Database Changes

This chapter provides lists of database changes in Oracle Utilities Application Framework included with the 20C release of Oracle Utilities cloud services. This includes:

- [New Tables](#)
- [New Columns](#)
- [New Views](#)
- [Database Parameter Changes](#)

New Tables

Table_Name
CI_ACC_GRP_ROLE
F1_ACTION_METHOD
F1_ACTION_METHOD_L
F1_ACTION_METHOD_CHAR

New Columns

Table_Name	Column_Name	Data Type	Data Length
F1_MD_BI_TBL	F1_BI_NAME	VARCHAR2	100
CI_CHAR_TYPE	FLD_NAME	CHAR	30
F1_MIGR_DATA_ST_TBL	RECORD_COUNT	NUMBER	9
F1_IWS_SVC	IWS_REST_VER_FLG	CHAR	4

New Views

View
F1_CAL_WEEK_D
F1_CAL_MONTH_D
F1_CAL_QUARTER_D
F1_CAL_YEAR_D
F1_CAL_FISC_PERIOD_D
F1_CAL_FISC_QUARTER_D
F1_CAL_FISC_YEAR_D

Database Parameter Changes

The **max_string_size** database initialization parameter was changed from **STANDARD** to **EXTENDED** to support 32k bytes for VARCHAR2 data types.