
Fast E-Business Suite Cloning with Recovery Appliance



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Corporate Background



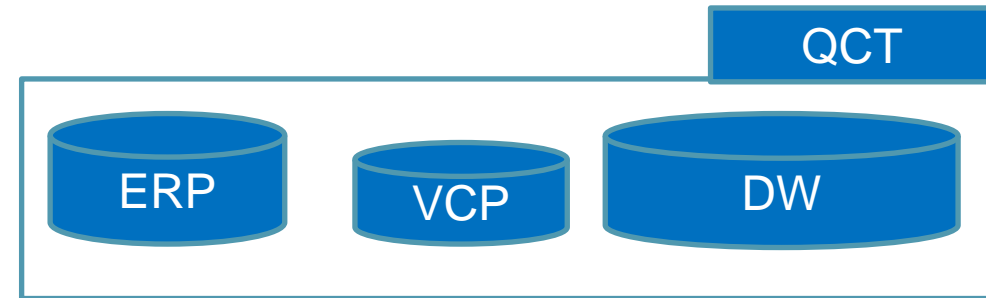
- Qualcomm's technologies powered the smartphone revolution and connected billions of people.
- We pioneered 3G and 4G – now, we are leading the way to 5G and a new era of intelligent, connected devices.
- Our products are revolutionizing industries, including automotive, computing, IoT, healthcare and data center, and are allowing millions of devices to connect with each other in ways never before imagined.

Oracle Database & E-Business Suite Environments

- QCT Division – **Supply Chain – Chip Set**

- 20 + Environments ~ **250 TB**

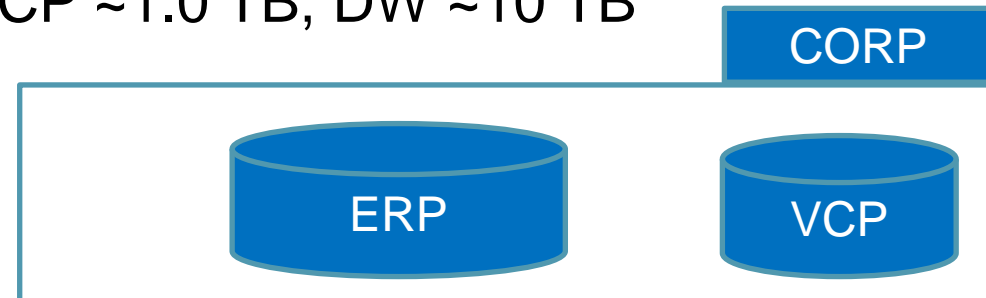
- Each environment - 3 DBS ~ 15 TB, ERP ~4.0 TB, VCP ~1.0 TB, DW ~10 TB



- CORP Division – **Financials – Corporate**

- 15+ RAC Environments ~ **50 TB**

- Each environment - 2 DBS ~ 4.5 TB, ERP ~4.0 TB, VCP ~0.5 TB

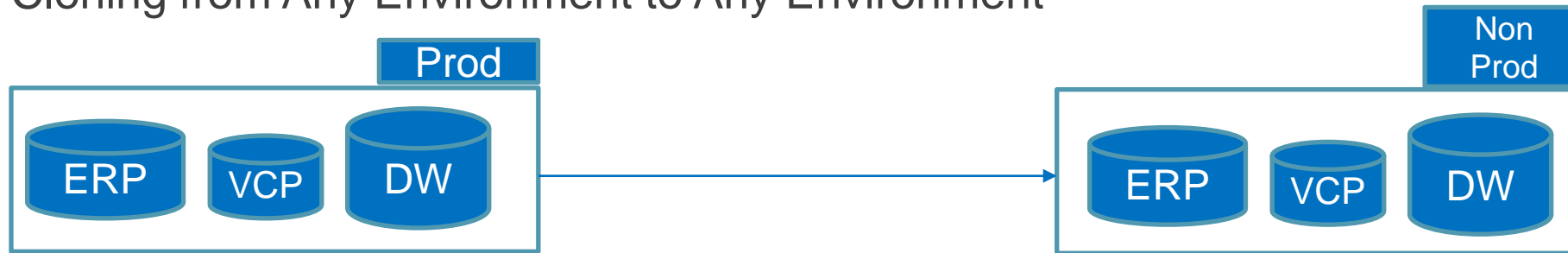


- **Mission Critical DB Environment: Total ~ 300 TB**

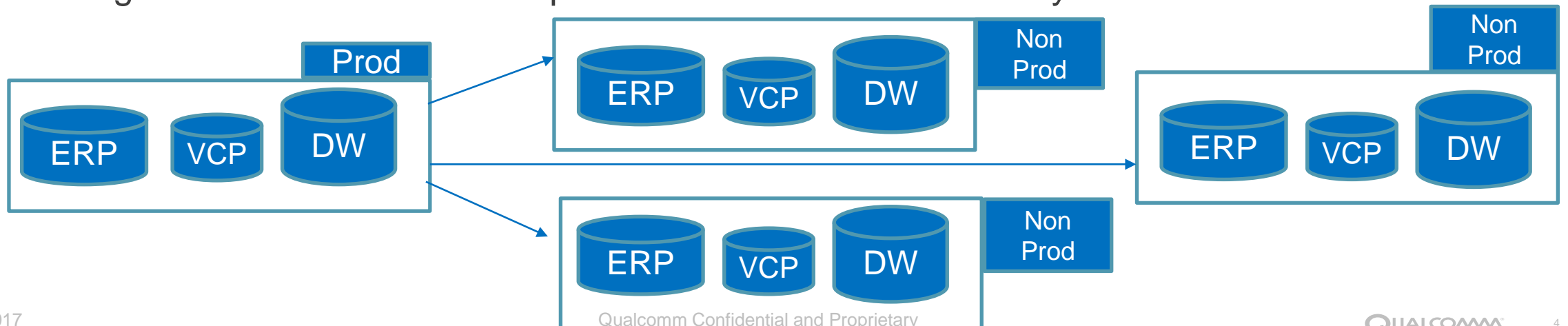
EBS Environments – Cloning Process Requirements

- Business Needs

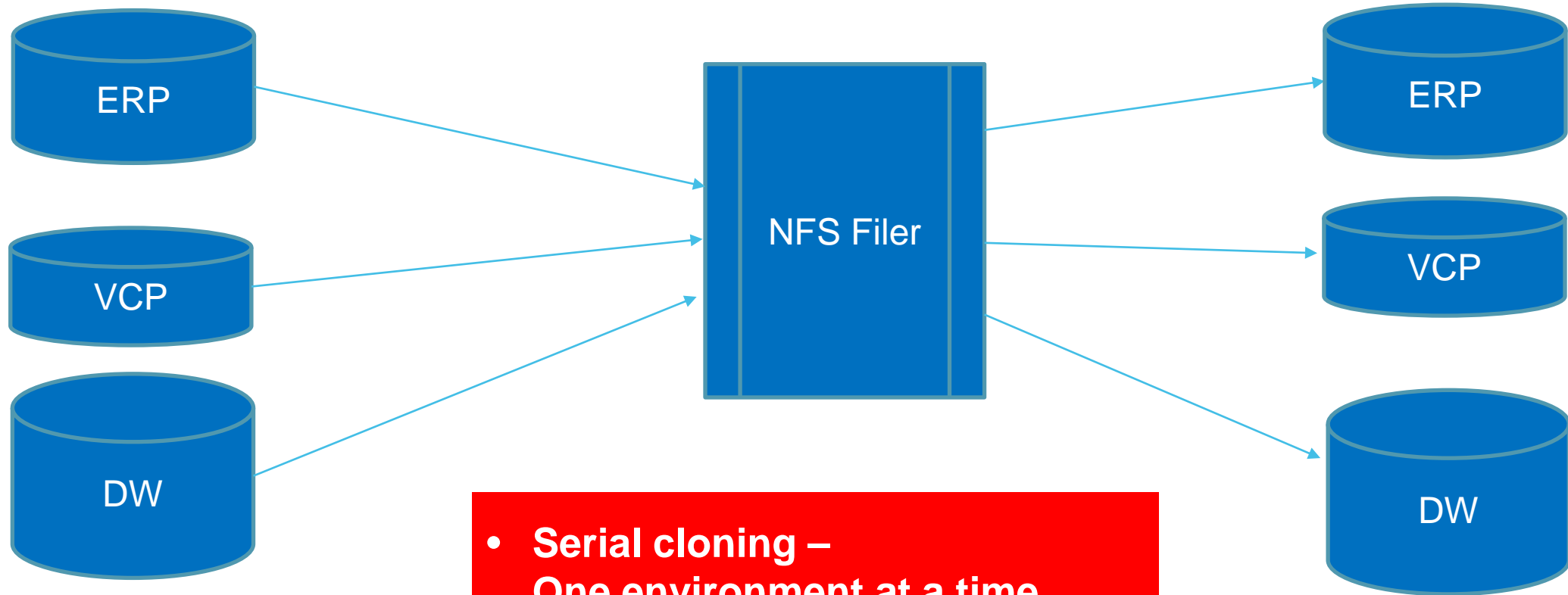
- Cloning from Any Environment to Any Environment



- Cloning one Environment to Multiple Environment simultaneously



Pre-ZDLRA: **Very Slow** EBS Cloning Process

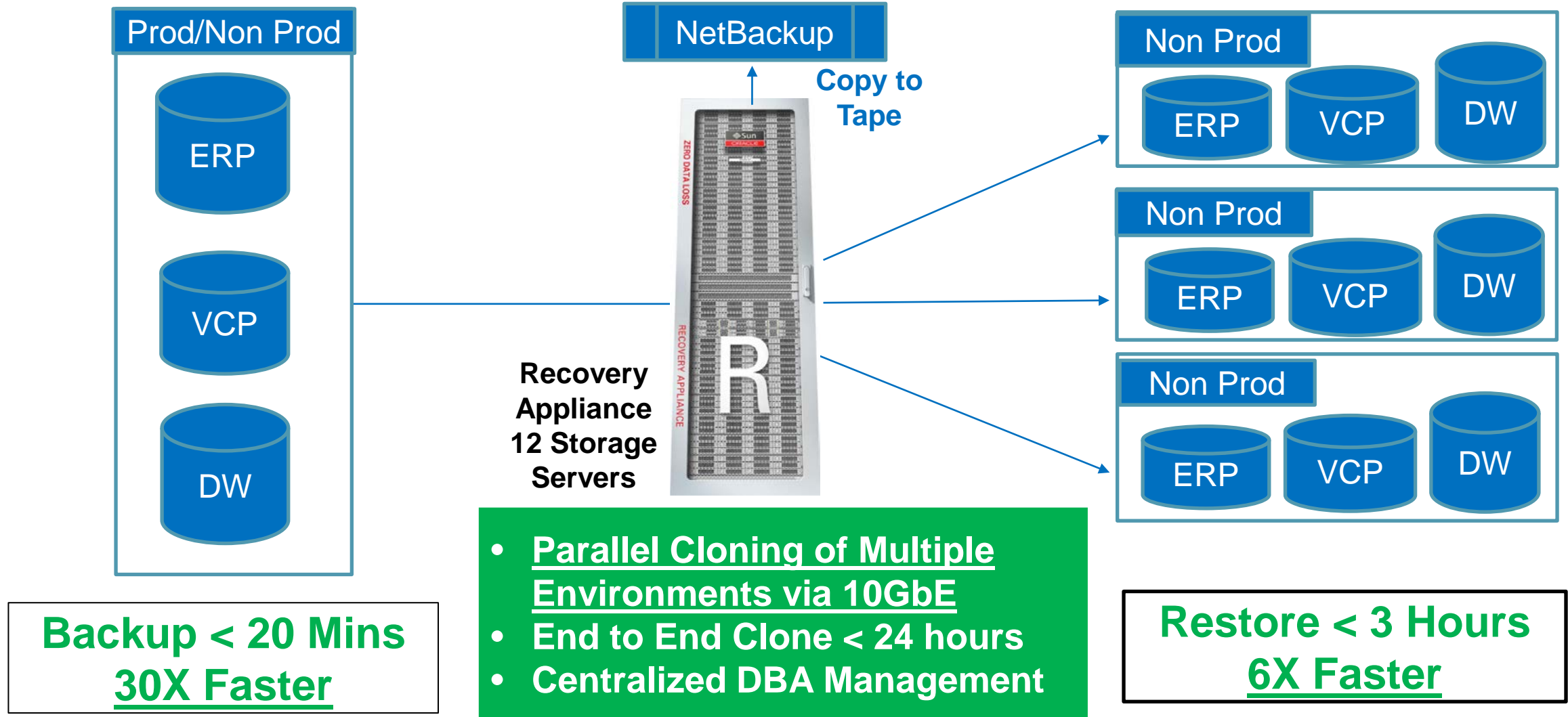


Backup 12+ Hours

- **Serial cloning – One environment at a time**
- **End to End Clone 48+ hours**
- **Management Nightmare**
- **Shared Infrastructure**

Restore 18+ Hours

Post-ZDLRA: **Much Faster** EBS Cloning Process



“ZDLRA” Restore Option via custom Kintana automation

The screenshot displays a configuration window with the following fields and values:

Object Type Information	
Object Type:	QCT - R12 - Refresh and Clone
Sequence:	1
Application Code:	None

Parameters	
Source Environment	OAQCTPRD_refresh
Destination Environment	OAQCTESE
Migrator Username	c_vsayal
Migrator UNIX Password	*****
Restore Type	ZDLRA
DB Backup Directory Location	
App Backup Directory Location	o:/mis/qct_ebs_appdb_backup/apps/OAQCTPRD/clonebkp/qcterpprdapp1/OAQCTPRD_011517
ZDLRA Recover Time	January 15, 2017 1:00:00 PM PST

Cloning Process with ZDLRA

Standard RMAN scripts run by kintana for ZDLRA Restore and Recovery

```
srcappspwd=`echo $en1 | awk -F: '{print $1}'`
SPWD=`echo $en1 | awk -F: '{print $2}'`
TPWD=`echo $en1 | awk -F: '{print $3}'`
tarcuspwd=`echo $en1 | awk -F: '{print $4}'`
}

ShutdownDatabase() {
  Logit "Bringing the database down..."
  $ORACLE_HOME/bin/sqlplus " / as sysdba" <<EOF
shutdown immediate;
EOF
}

MountDatabase() {
  Logit "Mount the database..."
  $ORACLE_HOME/bin/sqlplus " / as sysdba" <<EOF
startup mount;
EOF
}

#Openresetlogs() {
#Logit "open the database with resetlogs.."
#$ORACLE_HOME/bin/sqlplus " / as sysdba" <<EOF
#startup mount;
#alter database open resetlogs;
#EOF
#}

#run_nid()
#{
#ShutdownDatabase;
#MountDatabase;
#Logit "Changing the database DBID..."
#$ORACLE_HOME/bin/nid target = / logfile=$LogBase/nid_${ORACLE_SID}_${ProcessID}.log
#Openresetlogs;
#}
}
```

Shutdown Clone DB

**Mount Clone DB
Open RESETLOGS**

Change DBID

**RMAN auxiliary / catalog zdlra_vpc/\$ZCATPWD@qczdlra
cmdfile=rman_recovery.cmd**

```
sed -f ${LogBase}/strings ${RMANTEMPLATE} > ${LogBase}/${ORACLE_SID}_rman_recovery.cmd
$ORACLE_HOME/bin/sqlplus " / as sysdba" <<EOF
startup nomount pfile=$INITFILE;
EOF
rman auxiliary / catalog zdlra_vpc/$ZCATPWD@qczdlra cmdfile=${LogBase}/${ORACLE_SID}_rman_recovery.cmd log=${RmanProcessLog}
}

createInitfile()
{
  $ORACLE_HOME/bin/sqlplus " / as sysdba" <<EOF
create pfile from spfile;
EOF
}

createBCT()
{
  bin/rm -f ${ORACLE_HOME}/dbs/rman_${ORACLE_SID}_bct;
  $ORACLE_HOME/bin/sqlplus " / as sysdba" <<EOF
ALTER DATABASE ENABLE BLOCK CHANGE TRACKING USING FILE '${ORACLE_HOME}/dbs/rman_${ORACLE_SID}_bct';
EOF
}
```

EBS Environments – **Summary of Benefits** with ZDLRA

- **Simpler** Database Backup and Restore management
 - Eliminate staging & storage operations – now, RMAN-only
- **30X Faster** Database Backup and **6X Faster** Restore
 - Much more reliable and scalable cloning process
- **Easier** monitoring and reporting via EM
 - DBAs in control..end-to-end