Firewall

1. Firewall name- <Country><City><Park><blg><Type><Project><Purpose><FWXX>

Type – SHD shared DED dedicated

project name 3 letters for dedicated

-internet, VSS – VPNS2S, VCS – VPN C2S, LSD – leased line, ODC- isolating projects

Firewall no- FW01

1. Access to firewall admin rule
2. Spectrum- monitor health of firewall
3. Enable IPS in detect mode
4. Backup policy configuration- daily, retention period for configuration- 7 days
5. Firewall logs should retain in NAS for one year,logs older than 1 year can be purged
6. NTP server- Date

SERVICE LEVEL DOCUMENTS

Storage As A Service –

Storage, Backup and Archival Process

September 2022

Bangalore.

Document No.: CCD/PRO/044 Version. Rev: 8.14

Authorized by: Chandrashekhar Singh Signature/:

Date

2

nd September 2022

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Storage As A Service - Storage, Backup and Archival Process

Enterprise Storage - Storage, Backup and Archival Process

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Storage As A Service - Storage, Backup and Archival Process

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Storage As A Service - Storage, Backup and Archival Process

Storage As A Service - Storage, Backup and Archival Process

1. INTRODUCTION

Storage, Backup and Archival of Project data is an essential part of a Project Life Cycle. Management of Video

Surveillance data is the lifeline of Physical Security system. Restoration and recovery, of the said data, forms an

integral part of Enterprise Storage Management for continuity of Business Operations.

2. SCOPE

This document covers the process for managing the Project and Video Surveillance data stored on shared storage

infrastructure.

Projects using dedicated Windows file servers, dedicated storage servers and cloud storage for O365 services (e.g.

SharePoint, Teams, OneDrive for Business, etc.) are not included in this scope.

3. TOOLS USED

OnCommand Unified Manager, Snap-Mirror & Microsoft DFS.

4. OWNER OF THIS DOCUMENT

Practice Manager - IT Services – CCDFG4

5. GUIDELINES

5.1 PROVISIONING STORAGE

5.1.1 Project Data

Project share can be obtained by logging a request in AHD by the PM for Storage Space Allocation. Based on the

requirement, CCD creates a share as per the project code in ALCON and the nominated member by PM is given

full control as CC (Configuration Controller). Henceforth, CC will manage security permissions of the project

share. Similar amount of Storage Space is provisioned on secondary storage at remote site.

5.1.2 Video Surveillance

The storage space for video surveillance data is provisioned based on the request from Physical security/Facilities

team. Every location will have Primary and Secondary storage at two different data centers or server rooms.

Storage Space is provisioned on primary and secondary storage based on the retention requirements.

5.1.3 Generic space allocation

In case of any Storage requirement for DC Level initiatives, the same can be provisioned based on the approval

from DC Head with a definite end date and limited permissions.

In case of any temporary space requirement for backup or other purpose, space can be allocated for a period of

maximum of 90 calendar days without any local backup or DR replication. Within the mentioned time frame

project must clear and release the space. Post the above-mentioned period, share will be deleted, and space will

be reclaimed.

For any requirement greater than 90 calendar days, project must arrange for budgets.

Storage As A Service - Storage, Backup and Archival Process

5.2 ENTERPRISE STORAGE BACKUP

5.2.1 Project Data

Data backup is done based on Point-in-time copy of data using SnapShot technology which stores only byte level

incremental data on the same disks. The data in the SnapShots can be accessed and restored at file or folder level

by storage administrators as well as the end users who have access to the respective folders.

The word SnapShot refers to the erstwhile word backup. Different snapshots taken are listed below:

Type of Backup Timings Retention Remarks

Hourly SnapShot

Every 4 hours starting at

10 AM and taken 4 times

a day.

(10 AM, 2 PM, 6 PM &

10 PM)

3 days Applicable only for project shares using

CIFS protocol

Daily SnapShot 12AM

14 days Applicable only for project shares using

CIFS protocol

7 days Applicable only for DB using NFS

protocol

Weekly SnapShot 12AM every Sunday 12 weeks

SnapMirror

Every 4 hours at 10

mins. Not Applicable

Applicable only for project shares using

CIFS protocol

10 PM to 12 AM daily Applicable only for DB using NFS

protocol

5.2.2 Video Surveillance

Data written in the disks is continuous in nature and already optimized for storage. The backup solution such as

SnapShot / SnapMirror is not applicable. However, space is provisioned at Primary & Secondary storage at two

different data centers or server rooms at any given location in order to maintain two copies of data which can

serve as backup and DR.

For storage, LUNs are provisioned to both primary and secondary servers with equal amount of space. These are

mounted to respective MRM (Milestone Recording Server) machines as Local Disks. Data Security, Backup and

Retention are completely managed by the respective Application team. This is applicable to Indian locations only.

5.3 ENTERPRISE STORAGE MONITORING

The storage is monitored using OnCommand Unified Manager.

In case of SnapShot or SnapMirror failures, alerts are generated and sent through email to all the admins

concerned. A copy of daily backup report is retained at

This is not applicable for CCTV

storage.

5.4 BUSINESS CONTINUITY

5.4.1 Site Level

Data from Primary server is replicated onto a Secondary server at a different location at frequent intervals. The

DR site mapping for locations is given in Appendix A. This is applicable only for Project Data Storage.

Data from CCTV cameras are recorded at two recording servers at two different data centres/server room

simultaneously within a location. Remote DR is prohibitive since this is bandwidth intensive.

5.4.2 Hardware Level

Redundancy built into hardware by means of Cluster, RAID-DP and Global Disk Spares.

5.5 ARCHIVAL

The concerned PL/Configuration Controller (CC) of the Projects will log a request for archival of data based on

the logical end of the project. The request is captured in Service Desk and the call is assigned to concerned CCD

Analyst.

Data is archived onto a SnapLock volume. SnapLock volume is a based on WORM technology where data cannot

be modified even by administrators. Archival is done post the project is closed. This will be in in line with the

MSA signed between and Client.

This is applicable only for Project Data Storage.

5.6 RESTORATION CHECKS

Restoration checks are done quarterly in accordance with Phoenix BCM test plan for Project Data Storage by

location team.

6. RACI MATRIX

Activity

Service

Support

Team

Service

Delivery

Team

Service

Owner

Purchase

Team Finance TSM

CCTV

Core

Team Vendor

Planning and design C R and A A NA NA C C C

Capacity planning C R and A A NA NA C

C and

A C

Budget planning C R and A C NA NA I C NA

Procurement C C and R C R and A C

I and

C C C

AMC renewal C C and R C R and A C I C C

Vendor Payment NA C I R and A R and A NA NA NA

Implementation and

configuration A R and A C NA NA I I C & R

Physical support of

hardware R A NA NA NA C NA C

DRBCP R R and A I NA NA NA NA NA

Change Order

process R R and A C NA NA NA NA NA

Patching and

vulnerability A R and A I NA NA C

R and

C C

Retire of hardware R R and A NA NA NA I C NA

Audit and

compliance C R and A C C NA I C NA

R – Responsible

A – Accountable

C – Consulted

I – Informed

NA – Not Applicable

As A Service - Storage, Backup and Archival Process

7. APPENDIX A - DR LOCATION MAPPING FOR PROJECT DATA STORAGE

Sr. No. Location DR site

1 Bangalore

Vserver for Bhubaneswar,

Chandigarh, Jaipur, Mangalore, and

Trivandrum

Pune

2 Chennai Bangalore

3 China Bangalore

4 Germany London

5 Hyderabad Bangalore

6 London Germany

7 Melbourne Bangalore

8 Mohali Bangalore

9 Mysore Bangalore

10 Pune Bangalore

11 USA Plano USA Quincy

12 USA Quincy USA Plano

8. APPENDIX B – GLOSSARY

SNAPSHOT – It is a feature that creates an online, read-only copy of the entire file system at any given point in

time which protects data against any accidental deletions or modifications of files.

SNAPMIRROR – It is a DR application which is used for automated file system replication of a volume onto the

same or separate filer.

GLOBAL SPARE – Set of hard disk present in each filer unutilized. In case of any hard disk failure on the filer

then this spare is allocated to the aggregate automatically.

ONCOMMAND UNIFIED MANAGER – Web based tools which is being used for monitoring and is used for

day-to-day storage management activities

RAID-DP – RAID-DP is a standard Data ONTAP feature that safeguards data from double disk failure. Integrated

with our Write Anywhere File Layout file system, RAID-DP gives us data protection plus high performance. It is

a Double Parity RAID 6 implementation that prevents data loss when two drives fail.

AHD – System used to raise tickets with CCD Analysts. Synonym used for Service Desk.

ALCON – System used for Employee Allocation, confirmation, utilization and delegation for a project.

PM – Project Manager

CC – Configuration Controller

iSCSI – Acronym for Internet Small Computer System Interface, an Internet Protocol based storage networking

standard for linking data storage facilities.

LUN – Logical Unit Number is used to identify a logical unit, which is a device addressed by the iSCSI.

MRM – Milestone Recording Server is a server with Milestone application installation that records video in a

digital format to a disk drive attached to the system.

WORM – Write Once Read Many file layouts on NetApp controllers.