Town of Caledon – Disaster Recovery Playbook

System: Administration Building Data Centre

Role (Key Stakeholders)	Name	Email	Phone
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Approver			
Contributor (Technical)			
Contributor (DBA)			
Contributor (Network)			
Contributor (Vendor)			

Document Control

Document creation and edit records should be maintained by the Town's disaster recovery coordinator (DRC) or business continuity manager (BCM).

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Version	Date	Description	Approval

Contact Information

This section will list the Town's internal IT contacts along with external service providers (if applicable). This is the team that will conduct ongoing disaster recovery operations for this service, along with

Town Contact	Title	Phone	Email
Service Provider Contact	Role	Phone	Email

Data Centre Access Control List

Maintain an up-to-date access control list (ACL) specifying who, within the Town and any service partners, has access to the data centre and resources herein.

Be sure to specify which individuals can introduce guests to the data centre. This is required for determining, in the event of an emergency, who may be the designated point person for facilitating access to critical infrastructure. During a recovery event, the Town's primary operations team will be involved in system recovery, making contact and data centre access information critical to the success of the recovery process.

Name	Role	Contact Info	Access Level

Part 2 – System Level Procedures

Data Centre Recovery

Infrastructure Overview – Primary Data Centre (Administration Building)

Insert Infrastructure Diagram

Infrastructure Overview – Disaster Recovery Data Center (Snelcrest Dr.)

Insert Infrastructure Diagram

Order of Restoration Table – Core Infrastructure & IT Business Systems

This table assumes all items listed as "active" in **Appendix A – DR Site Current State** are enabled and require no intervention by the recovery team.

This section includes instructions for recovery personnel that lay out which infrastructure components to restore and in which order. It should take into account application dependencies, authentication, middleware, database and third-party elements and list restoration items by system or service type. Ensure this order of restoration in understood before engaging in recovery activities.

Task #	Activity (*business system)	System/Service Description	Notes
1	Assemble Recovery Team	Ensure that the required recovery team members have been contacted	Refer to "Contact Information" in Section 1 of this document
2	Secure Internet	Move to a location with Internet access	Recovery team must secure a corporate laptop with a configured VPN client
3	Physical Infrastructure Checklist	Review physical infrastructure checklist to ensure availability of services	Refer to **Appendix B –DR Infrastructure Checklist** (items 1-11)
4	Core Infrastructure Services Checklist	Ensure core infrastructure services are active	Refer to **Appendix B – DR Infrastructure Checklist** (items 15-18)
5	Primary DC Shutdown	Perform a soft shutdown of the primary DC	Refer to **Appendix C – Primary DC Shutdown**
6	VPN Testing	Test VPN access to DR site	Must be on a corporate laptop. Please refer to **Appendix D – VPN Access**
7	Telephony (VOIP)	Automatic failover of corporate phones	Refer to **Appendix E – VOIP Testing**
8	Email Testing	Exchange 2010 standard	Refer to **Appendix F – Email Testing**
9	Database Recovery	Oracle & SQL database recovery	Refer to **Appendix G – Database Recovery**
10	File/Print Recovery	Desktop Authority (Quest) & Print Server	Refer to **Appendix H – File and Print Recovery**
11	*Helpdesk Recovery	TrackIT	Refer to **Appendix I – Helpdesk System Recovery**
12	*GIS Recovery		

Appendix A – DR Site Current State

Appendix B – DR Infrastructure Checklist

Current State				active	warning	issue

Item#	Description	Status	Notes
Physical Infrastructure			
Facilities (power, cooling, space)			
1	Power	🟩	Generator – natural gas (Enbridge) – May affect major power outage due to close proximity (22km) from Town Hall. There has been power spikes in the past
2	Cooling	🟩	Could be an issue with cooling
3	Fire Suppression	🟥	Does not exist at DR site
4	Space	🟩	Adequate
5	Access	🟨	Need to clarify who actually has access to the facility (IT Infrastructure) – Does database team? (No) Need a list of names. Facilities group also has access to the room. Door code for access (may want to review). AA
Resource Layers (network – routers/switches/firewalls, storage – SAN/NAS/DAS, compute – physical servers/hosts)			
6	Switches (2)	🟩	Cisco 4500x, Cisco 2960x Document steps to confirm connectivity
7	Firewall (1)	🟩	Cisco 5515x Document steps to confirm connectivity
8	Backup Appliance	🟩	Unitrends Document steps to confirm connectivity
9	Server Chassis	🟩	IBM Flex Chassis (5 nodes) 5 x VMware Hosts
10	Physical Servers (2)	🟩	IBM (need model number) (HyperV 2012 host + Windows 2016 DC)
11	SAN	🟩	EMC Unity – 80TB(RAW) – 60TB usable (Ankur to provide details)
Software-Defined			
12	VMware (SRM)	🟩	Total 20 servers (25 licenses) Replication schedule – every 5 minutes
13	Virtual servers (16)	🟨	VMware v6.5 (Gary to add server details) (RDS, load-balancer, phone system) some of these servers are live. There are production servers running within this environment that need to be identified.

Current State				active	warning	issue

Item#	Description	Status	Notes
14	Oracle VM (2)	🟨	HyperV 2012 – (passive). Replication from production. Manual activation required **NOTE:** licensing only permits 10-days of activity in DR site
Core Infrastructure Services (DNS/DHCP/Security/Password Management)			
15	DNS (AD integrated)	🟩	Running on a physical server and also virtual server (live today). May be a delay at TOD (propagation)
16	DHCP	🟨	Running on a virtual server (in production today for about 30% of addressing) Can it handle 100%? (Yes). Has not been tested (active/active)
17	Password Management	🟩	In production - no work necessary at TOD
18	Internet	🟩	Will be available
Essential Infrastructure Services (Authentication/AD/File&Priint/Apps/DB/Remote Access/Internet/Monitoring/MDM/Backup)			
19	Authentication	🟩	Domain Controller is currently active (1 VM + 1 Physical)
20	Remote Access (VPN)	🟩	
21	SQL	🟥	Requires Database team to recover (SRM)
22	Oracle	🟥	Requires Database team to recover (SRM)
23	File/Print	🟥	
IT Business Services (Helpdesk/VOIP/Email/GIS/Reporting/Project Management/Development Services)			
24	Helpdesk	🟥	TrackIT – fat client - DB is replicating (SQL)
25	GIS	🟥	TBD
26	Email	🟥	Exchange 2010 Standard (5 Databases) Recovered via SRM

Current State				active	warning	issue

Item#	Description	Status	Notes
27	VOIP (phone system)	🟨	Should failover but this needs to be tested
28	External Websites (5)	🟥	Hosted by third-party + internal (not currently replicated)
29	Reporting	🟥	
30	Project Management	🟥	
31	Development	🟥	

Appendix C – Primary DC Shutdown

Appendix D – VPN Access

Appendix E – VOIP Testing

Appendix F – Email Testing

Appendix G – Database Recovery

Appendix H – File and Print Recovery

Appendix I – Helpdesk Recovery