

## Preventative Maintenance (SERVER)

|                     |                               |
|---------------------|-------------------------------|
| Job No:             | 10010001                      |
| System Description: | TUNNEL RFID                   |
| Station Name:       | Banyan Offtake / 192.169.60.1 |
| Customer:           | LTA                           |
| Project No:         | 1423                          |



**Willowglen Services Pte Ltd**  
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Tel: (65) 6280 0437 Fax: (65) 6286 2002  
Company Registration No: 198602842C

ATTENDED BY

Thant

(WILLOWGLEN)

WITNESSED BY

Ann

(CUSTOMER)

START DATE/TIME

31/12/2025 14:00

COMPLETION DATE/TIME 03/01/2026 13:05

***Remark***

Test

## Server Health Check

### Check Instructions:

Check Server Front Panel LED Number 2, as shown below. Check LED 2 in solid green, which indicates the server is healthy.

No server health data available

## Hard Drive Health Check

Check Hard Drive Health Status LED, LED in solid/blingking green, which indicates healthy.

No hard drive health data available

## Disk Usage Check

### Using Computer Management

- From Control Panel -> Administration Tools -> Computer Management.
- Click on the Storage -> Disk Management. Check the status for all the hard disks.
- Remove old Windows event logs to meet the target disk usage limit.

\* Note: The HDSRS servers with SQL Server Database keep the historical data and daily/weekly/monthly backups. The disk space usage can be up to 90%, which is considered as normal.

No disk usage data available

### Remark

No specific remarks for disk usage check.

## CPU and RAM Usage Check

### **Using Task Manager, go to Performance Tab**

- Right click on the task bar and select Task Manager.

No CPU and memory usage data available

## Network Health Check

### Ring Network Check.

Date Checked: 31/12/2025 08:00

#### Procedure:

Observe the ring and ring master LED on the network switch.

#### Result:

Ring and ring master LED should be green (stable).

Yes

If the answer is 'No', please use topology viewer (Oring software) to check if any switch in the ring has connectivity problem.

## Willowlynx Process Status Check

### Process Status

Login into Willowlynx and navigate to the "Server Status" page, as shown below.

#### Result:

All process services should be online, either ACTIVE or STANDBY.

Yes

### Remarks

Test Willowlynx Process Status Check

## Willowlynx Network Status Check

Check the system overview page to ensure all servers, switches, and RTUs are green.

**Result:**

All servers, switches, and RTU are green.

**Yes**

**Remarks**

test Willowlynx Process Status Check

## Willowlynx RTU Status Check

**Instructions:**

Check the RTU Device Status page. RTU status and PLC status shall be green.

**Result:**

RTU status and PLC status are green.

Yes

**Remarks**

Test Willowlynx RTU Status Check

## Willowlynx Historical Trend Check

**Instructions:**

Randomly select some analog measurement points, open the trend view, and confirm the trend displays without errors.

**Result:**

Trends can be displayed without issues.

**Yes**

**Remarks**

Test

## Willowlynx Historical Report Check

Click the CTHistReport icon on an HMI, open the Historical Report module, and ensure analog, digital, and alarm reports can be displayed.

### Result:

All reports can be displayed without issues.

Yes

### Remarks

Test Willowlynx Historical Report Check

## Willowlynx Sump Pit CCTV Camera Check

Click the CCTV buttons from the PLUMB-SAN page to confirm the player window for each camera can be played.

**Result:**

All CCTV cameras can be played without issues.

**Yes**

**Remarks**

Test

## Monthly Database Creation Check

Willowlynx's historical database uses monthly partitions. Confirm MSSQL has the next six months created.

### Monthly Database Creation

| S/N | Server Name     | Monthly DB are Created |
|-----|-----------------|------------------------|
| 1   | CR-ECID-IF-SVR2 | Yes                    |

### Remarks

Test

## Database Backup Check

Check D:\MSSQLSERVER-BACKUP\Monthly and ensure the database backups exist in this directory.

### MSSQL Database Backup Check

| S/N | Item         | Monthly DB Backup are created |
|-----|--------------|-------------------------------|
| 1   | CR-KCDe-SVR1 | Yes                           |

### SCADA Database Backup Check

| S/N | Item                  | SCADA DB Backup are created |
|-----|-----------------------|-----------------------------|
| 1   | CR-KCDe-FiberPatrol01 | Yes                         |

Latest Backup File Name: CR-KCDe-FiberPatrol01.bak

### Remarks

Test

## SCADA & Historical Time Sync Check

**Instructions:**

Verify the SCADA server, historical server, and HMIs are time synchronised by running w32tm /query /status. The difference shall be within five minutes.

| S/N | Machine Name | Time Sync Result |
|-----|--------------|------------------|
| 1   | SCADA-SERVER | Pass             |

**Remarks**

Test



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## Hotfixes / Service Packs

Review and apply the latest hotfixes or service packs on all applicable servers.

No hotfix data available

## Auto failover of SCADA server

Auto failover of SCADA server testing procedures:

*Note: Make sure both SCADA servers are online after completing the test.*

No auto failover data available

## ASA Firewall Maintenance

To check ASA firewall health and backup the running configuration:

1. Connect to the ASDM application from the SCADA server.
2. Access the ASA firewall CLI and input the commands below.

No ASA firewall data available

3. Check the firewall overview to ensure everything is running properly.
4. Backup the configuration to the D drive of SCADA SVR1.



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## Software Patch Summary

No software patch data available