SSL Monitor Setup Guide for Beginners

What is SSL Monitoring?

SSL certificates are like digital IDs for websites and applications. They:

- Make connections secure (you see the padlock 🔒 in your browser)
- Have expiration dates (like a driver's license)
- Can break applications if they expire

SSL monitoring watches these certificates and warns you before they expire, preventing application outages.

Before You Start

✅ **Prerequisites (should already be done):**

- AppDynamics Machine Agent is installed and running
- SSL Certificate Monitor extension is already installed
- You have access to the server where the Machine Agent is running

📝 **What You Need to Know:**

- The name/URL of the application you want to monitor
- The port number the application uses (usually 443 for websites)

Step-by-Step Instructions

Step 1: Find the Configuration File

1. **Connect to your server** (ask your system administrator how if you don't know)
2. **Navigate to the SSL monitor folder: On Windows:**

   C:\AppDynamics\MachineAgent\monitors\SslCertificateMonitor\

   On Linux:

   /opt/appdynamics/machine-agent/monitors/SslCertificateMonitor/

3. **Look for a file called** `config.yml` - this is what you need to edit

Step 2: Make a Backup (Important!)

Before making changes, create a backup copy:

On Windows:

- Right-click on `config.yml`
- Select "Copy"
- Right-click in empty space → "Paste"
- Rename the copy to `config.yml.backup`

On Linux:

```bash
cp config.yml config.yml.backup
```

Step 3: Find Out Your Application Details

You need to know:

- **Application URL/hostname** (like `myapp.company.com`)
- **Port number** (usually 443 for HTTPS websites)

How to find this information:

1. **From the application URL:** If users access it via `https://myapp.company.com`, then:
   - Hostname = `myapp.company.com`
   - Port = `443` (default for https)
2. **Ask someone:** Your application team or system administrator
3. **Test the connection:** Open a web browser and go to `https://yourapp.company.com` - if it works, you have the right hostname

Step 4: Edit the Configuration File

1. **Open `config.yml` in a text editor**
   - Windows: Notepad, Notepad++, or VS Code
   - Linux: nano, vi, or any text editor
2. **Find the "servers:" section** - it looks like this:

```yaml
```

```yaml
servers:
  - displayName: "Example Server"
    host: "example.com"
    port: 443
```

3. **Add your application** by copying an existing entry and changing the values:

```yaml
yaml

servers:
  - displayName: "My Important App"
    host: "myapp.company.com"
    port: 443
```

Important formatting rules:

- Keep the same spacing/indentation as existing entries

- Put quotes around text values

- Don't use quotes around numbers

Step 5: Example Configuration

Here's what your addition might look like:

```yaml
yaml

servers:
  # Existing servers (don't change these)
  - displayName: "Web Server"
    host: "web.company.com"
    port: 443

  # Your new server (add this)
  - displayName: "Customer Portal"
    host: "portal.company.com"
    port: 443
```

Replace with your actual values:

- `"Customer Portal"` → A descriptive name for your application

- `"portal.company.com"` → Your application's hostname

- `443` → Your application's SSL port (usually 443)

Step 6: Save the File

1. **Save your changes** (Ctrl+S on Windows, or `:wq` in vi on Linux)

2. **Double-check:** Make sure the file saved without errors

Step 7: Restart the Machine Agent

The agent needs to restart to pick up your changes:

On Windows:

1. Open "Services" (type `services.msc` in Start menu)

2. Find "AppDynamics Machine Agent"

3. Right-click → "Restart"

On Linux:

```bash
sudo systemctl restart appdynamics-machine-agent
```

Step 8: Verify It's Working

Wait 5-10 minutes, then check:

1. **Check the log file** for errors: **Windows:** `C:\AppDynamics\MachineAgent\logs\machine-agent.log` **Linux:** `/opt/appdynamics/machine-agent/logs/machine-agent.log` Look for recent entries mentioning your application name.

2. **Check AppDynamics Controller:**
   - Log into AppDynamics Controller
   - Go to: **Applications → Application Infrastructure Performance → Machine Agent → Custom Metrics**
   - Look for: **SSL Certificate Monitor**
   - You should see your application listed with metrics

What You Should See in AppDynamics

After 10-15 minutes, you should see metrics like:

```
Custom Metrics
  └──── SSL Certificate Monitor
      └──── [Your Application Name]
        ├──── Days to Expiry: 45
        ├──── Certificate Valid: 1
        └──── Host Name Match: 1
```

What these numbers mean:

- **Days to Expiry:** How many days until the certificate expires

- **Certificate Valid:** 1 = good, 0 = problem

- **Host Name Match:** 1 = good, 0 = certificate doesn't match the hostname

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Troubleshooting

❌ Problem: No metrics showing up

Check these things:

1. **File format:** Make sure your `config.yml` has correct spacing
   - Use spaces, not tabs
   - Keep the same indentation as other entries

2. **Network connection:** Test if your server can reach the application:

   ```bash
   # On Linux/Windows with curl installed
   curl -I https://yourapp.company.com
   ```

3. **Check logs:** Look in machine-agent.log for error messages

❌ Problem: "Connection failed" errors

- **Wrong hostname:** Double-check the application URL

- **Wrong port:** Make sure you're using the right port number

- **Firewall:** Your server might not be able to reach the application

❌ Problem: Machine Agent won't restart

- **File syntax error:** Check that your `config.yml` has correct formatting

- **Restore backup:** Copy your backup file back: `cp config.yml.backup config.yml`

Common Application Types and Ports

Application Type	Typical Port	Example
Website (HTTPS)	443	web.company.com:443
Email Server	993, 995	mail.company.com:993
Database	5432, 1433	db.company.com:5432
API Server	8443, 443	api.company.com:8443
VPN Gateway	443	vpn.company.com:443

Need Help?

If you get stuck:

1. **Restore your backup:** `cp config.yml.backup config.yml`

2. **Restart the agent** to get back to working state

3. **Ask for help** and show someone:
   - Your `config.yml` file
   - The machine-agent.log file
   - The exact error message you're seeing

Quick Reference Card

Files you'll work with:

- `config.yml` - Configuration file to edit
- `machine-agent.log` - Log file to check for problems

Basic syntax for adding an application:

```yaml
- displayName: "Your App Name"
  host: "yourapp.company.com"
  port: 443
```

Commands to restart:

- Windows: Services → AppDynamics Machine Agent → Restart

- Linux: `sudo systemctl restart appdynamics-machine-agent`

Where to check if it's working: AppDynamics Controller → Applications → Application Infrastructure Performance → Machine Agent → Custom Metrics → SSL Certificate Monitor