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# Oracle Solaris Stats Store and Web UI



# Safe Harbor Statement

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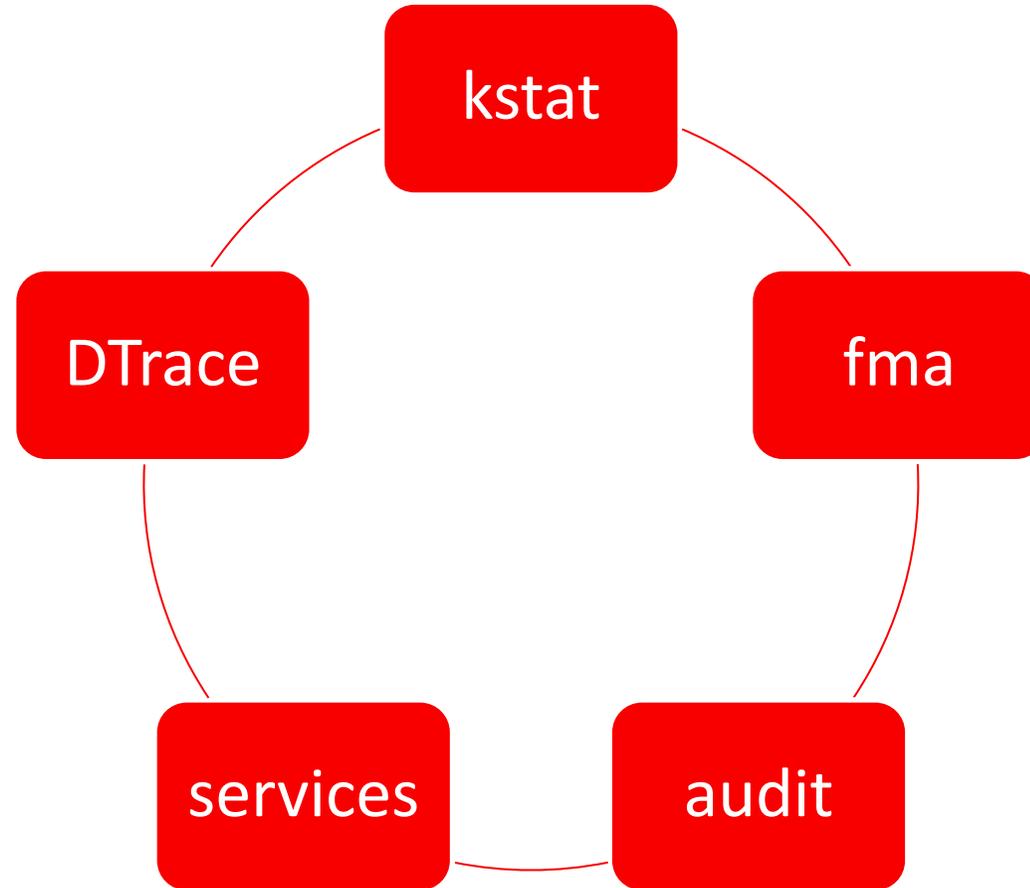
# Stats Store

`svc:/system/sstore`

- Some contradictory ideas
  - What isn't measured cannot be improved
- On the other hand
  - Measuring can affect to symptoms
- Always have to balance collection of data vs impact
- Consequently
  - Rarely have the right data being collected when a problem occurs

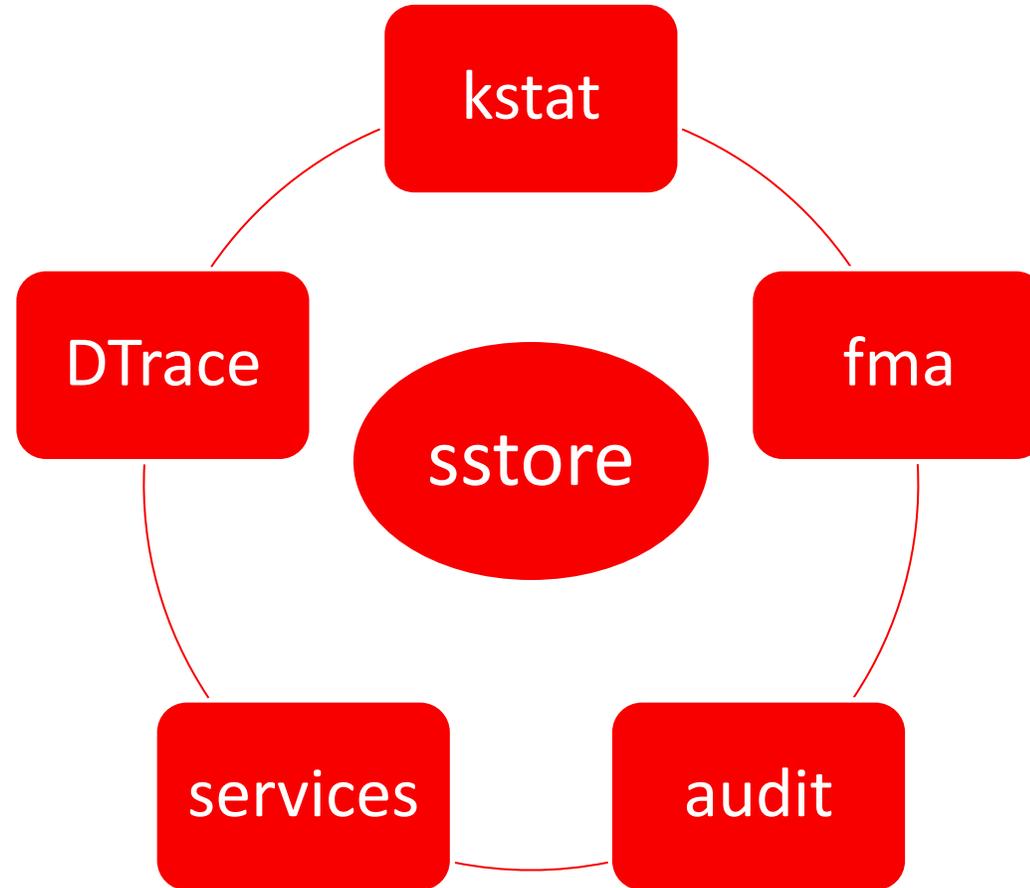
# Stats Store

`svc:/system/sstore`



# Stats Store

`svc:/system/sstore`



# Oracle Solaris 11.4: Stats Store

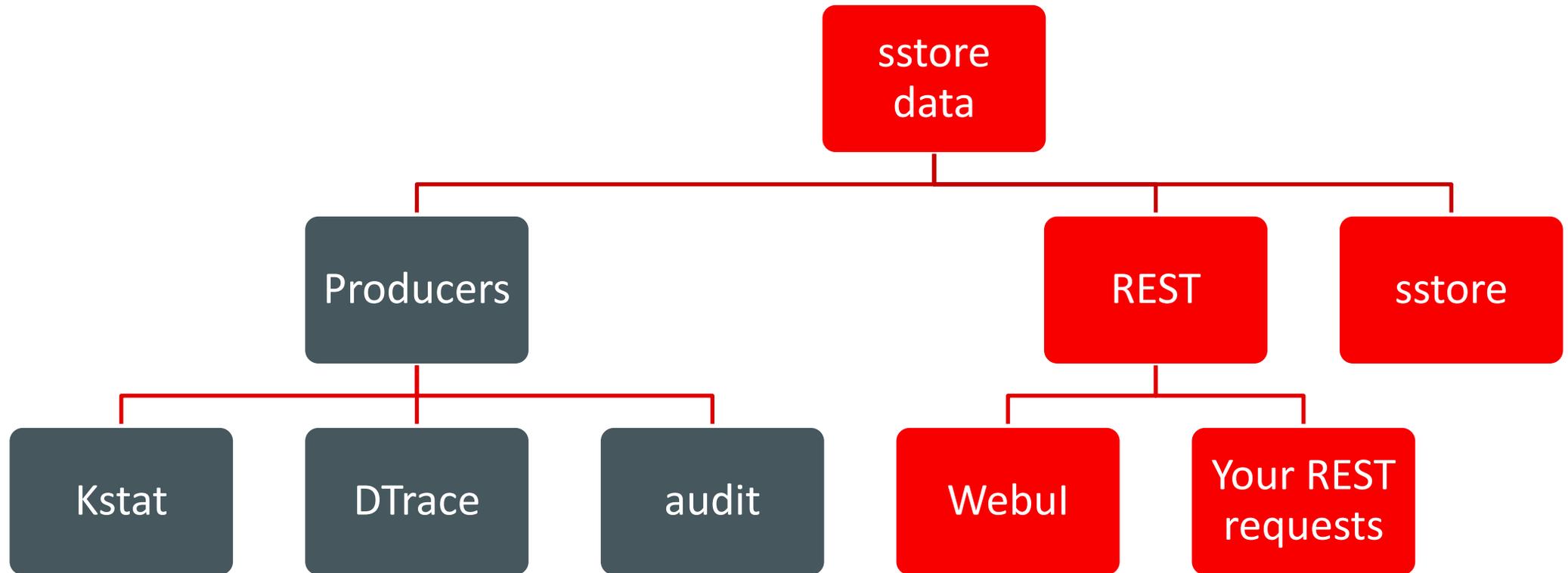
## Near Zero-Overhead Diagnosis

- Always-available real-time and historical data
  - Essential statistics collected by default
  - More performance data acquired instantly
  - Extensible to any application
- For any VM, on premise or in the cloud
  - Accessible and customizable by any authorized user
  - Near-zero overhead
- Zero administrative overhead
  - No extra software to manage
  - No configuration necessary



# WebUI

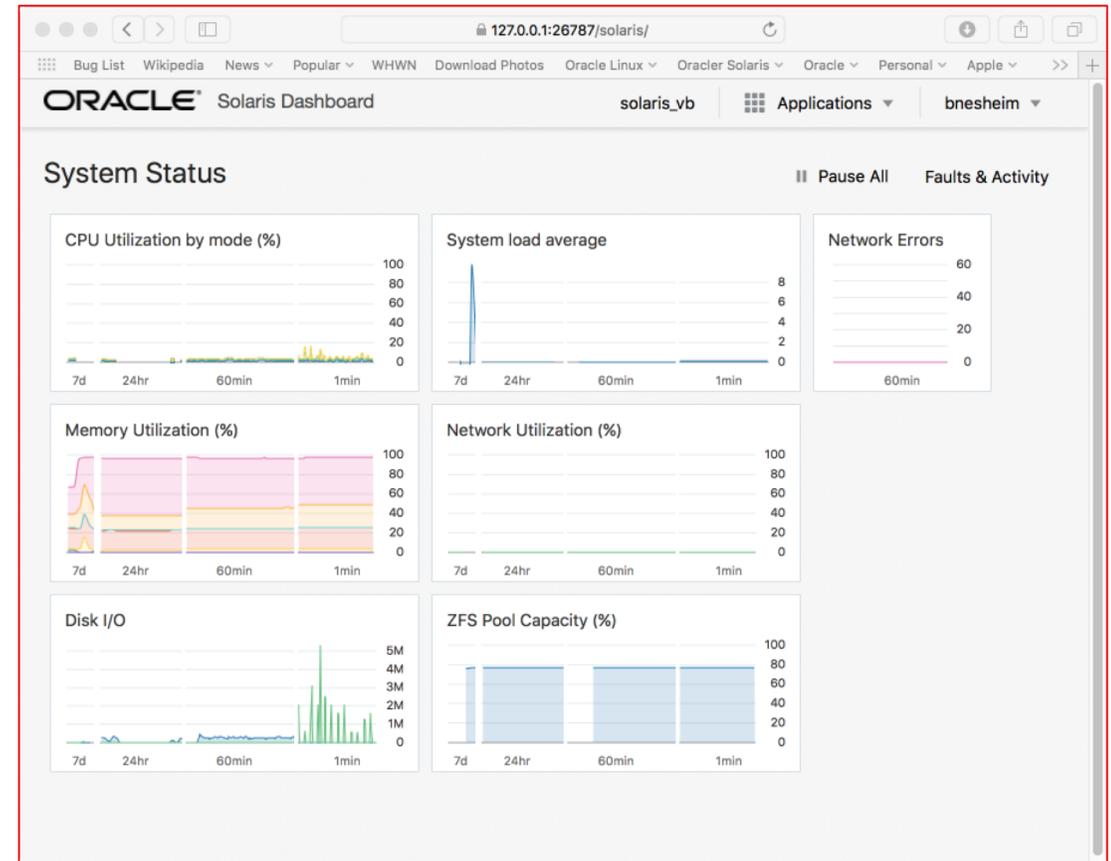
`svc:/system/webui/server`



# Oracle Solaris 11.4 Beta: Admin Web Dashboard

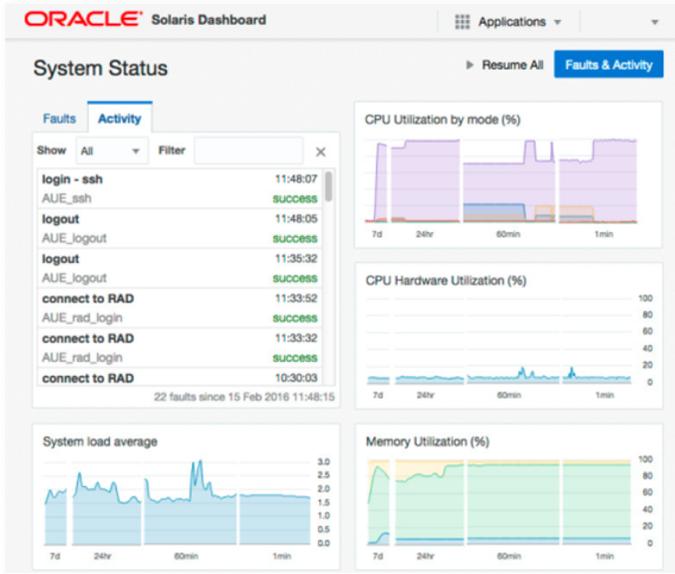
## System Management Features

- Real-time and historical data
  - Essential statistics collected continuously
  - More health and performance data acquired instantly
  - Compliance and security statistics for authorized users
- Lightweight intuitive web based UI
  - Designed for minimal overhead
  - No Agents to install



# Oracle Solaris 11.4: Web Dashboard

## System Management Features

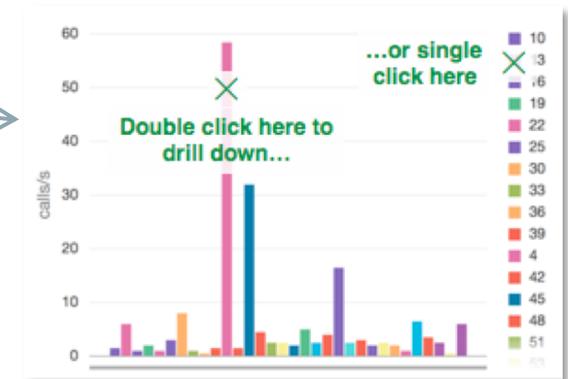


*Select resource*



**Specialized diagnostics sheets**  
System resources, applications, ...

*Drill-down*



Explore specific data sets

*Navigate in time*



Correlate different time periods  
and statistics

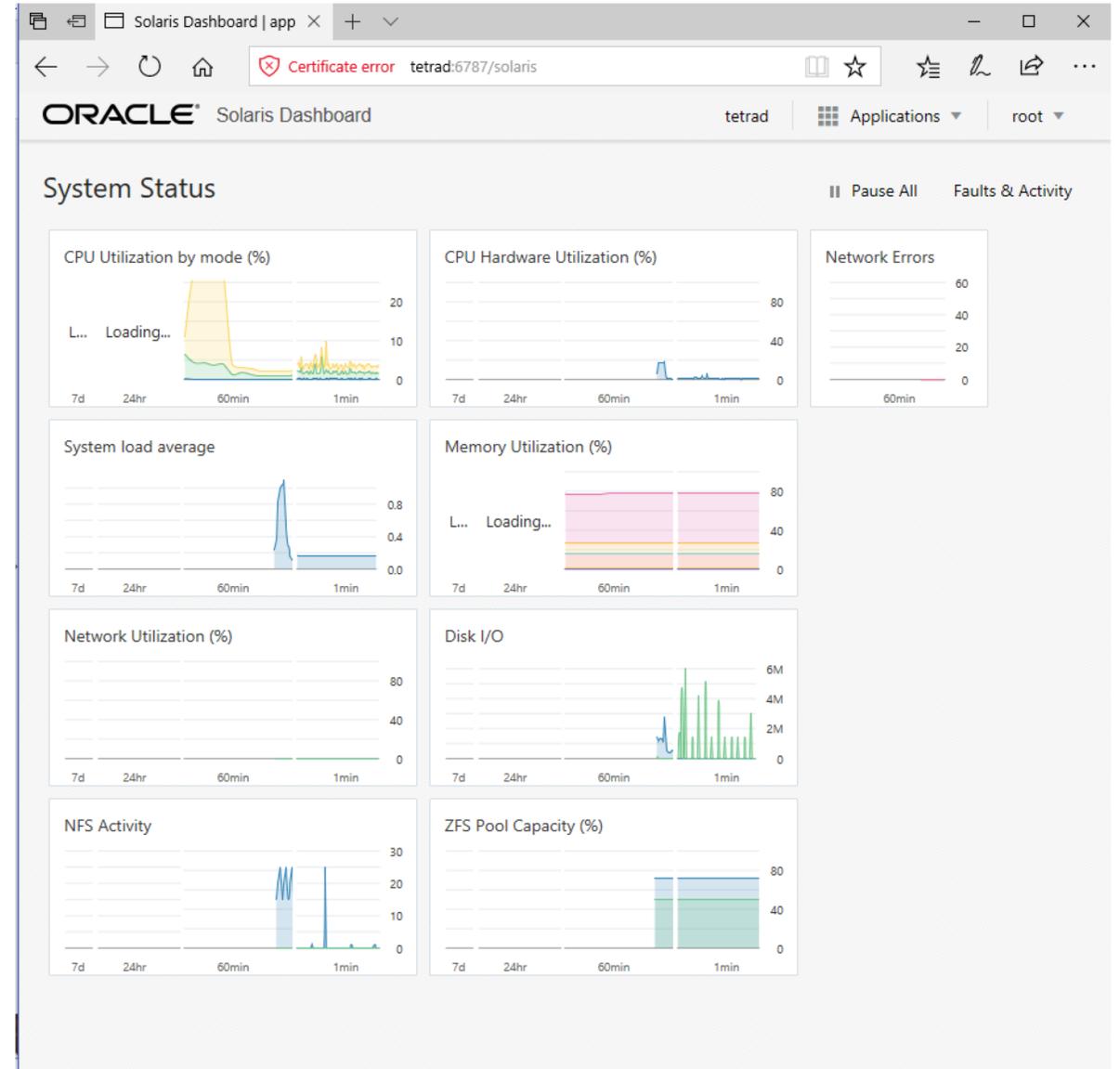
## Dashboard - System Status at a glance

- Basic system configuration
- Historical system data
- System faults and activities

# WebUI

`svc:/system/webui/server`

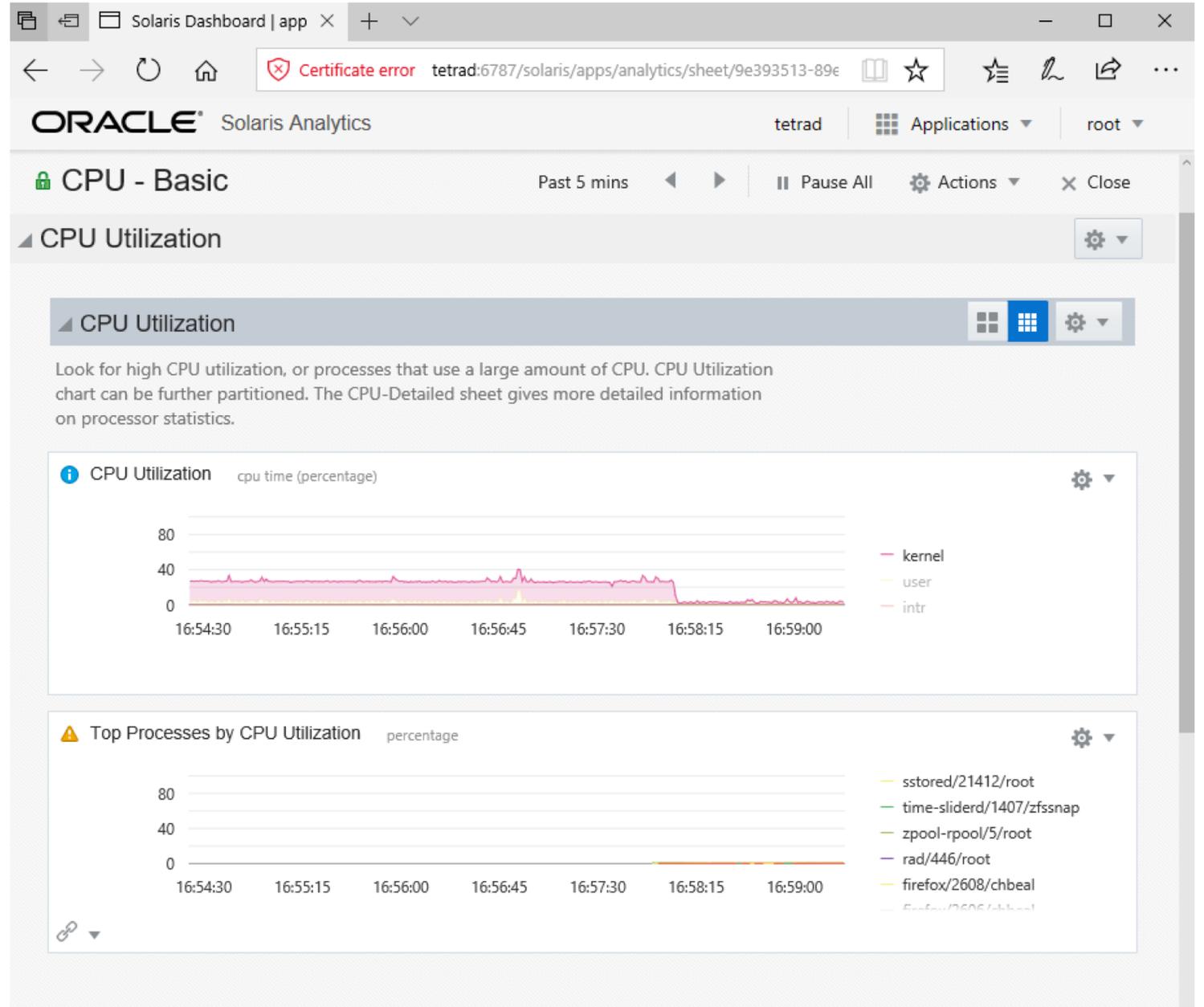
- Lets look at some of the sstore data you can see (but let's look at it via the pretty graphs)
- `svcadm enable webui/server`
- Point your browser at `https://<hostname>:6787`



# WebUI

svc:/system/webui/server

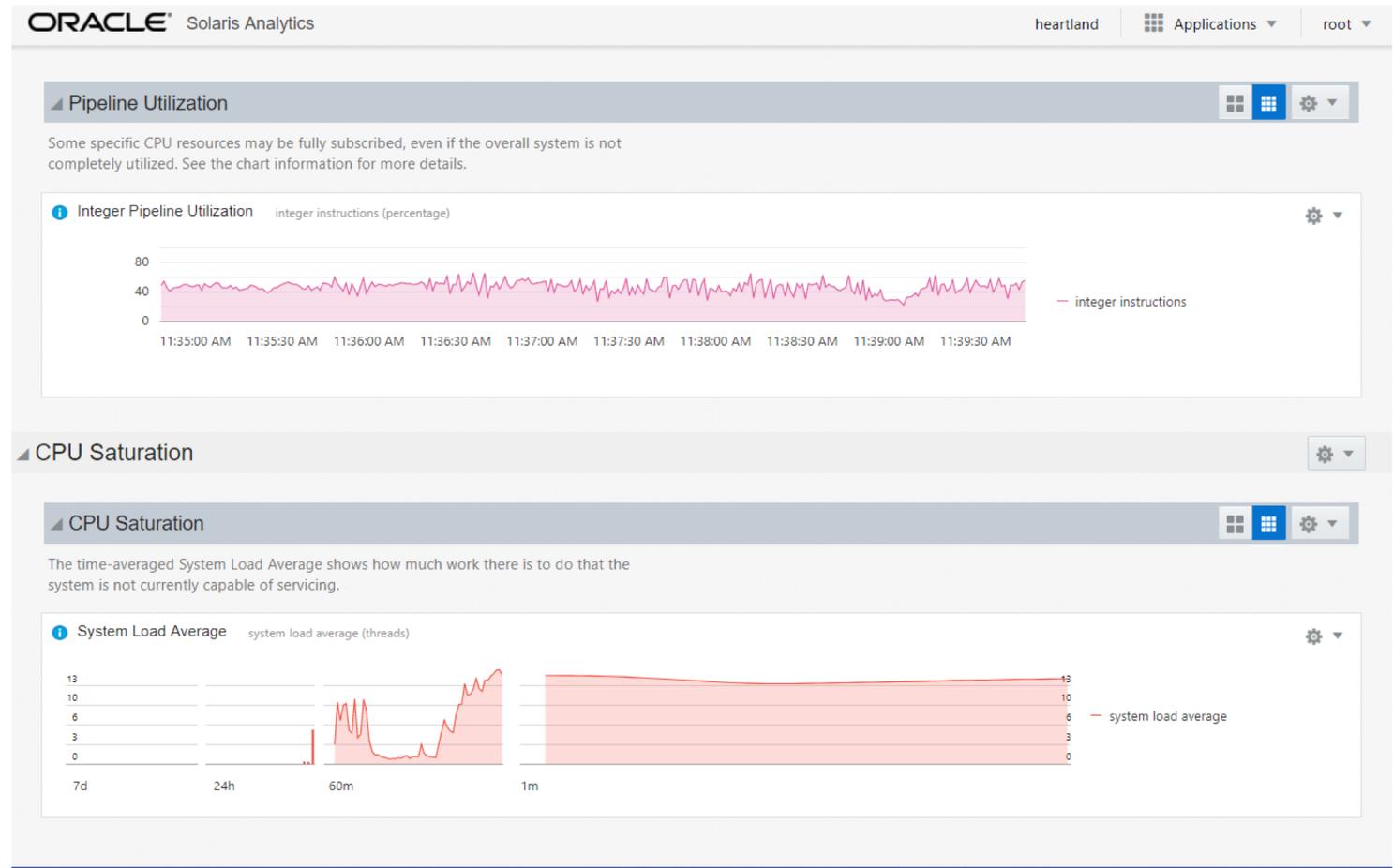
- Drill in to CPU statistics



# WebUI

svc:/system/webui/server

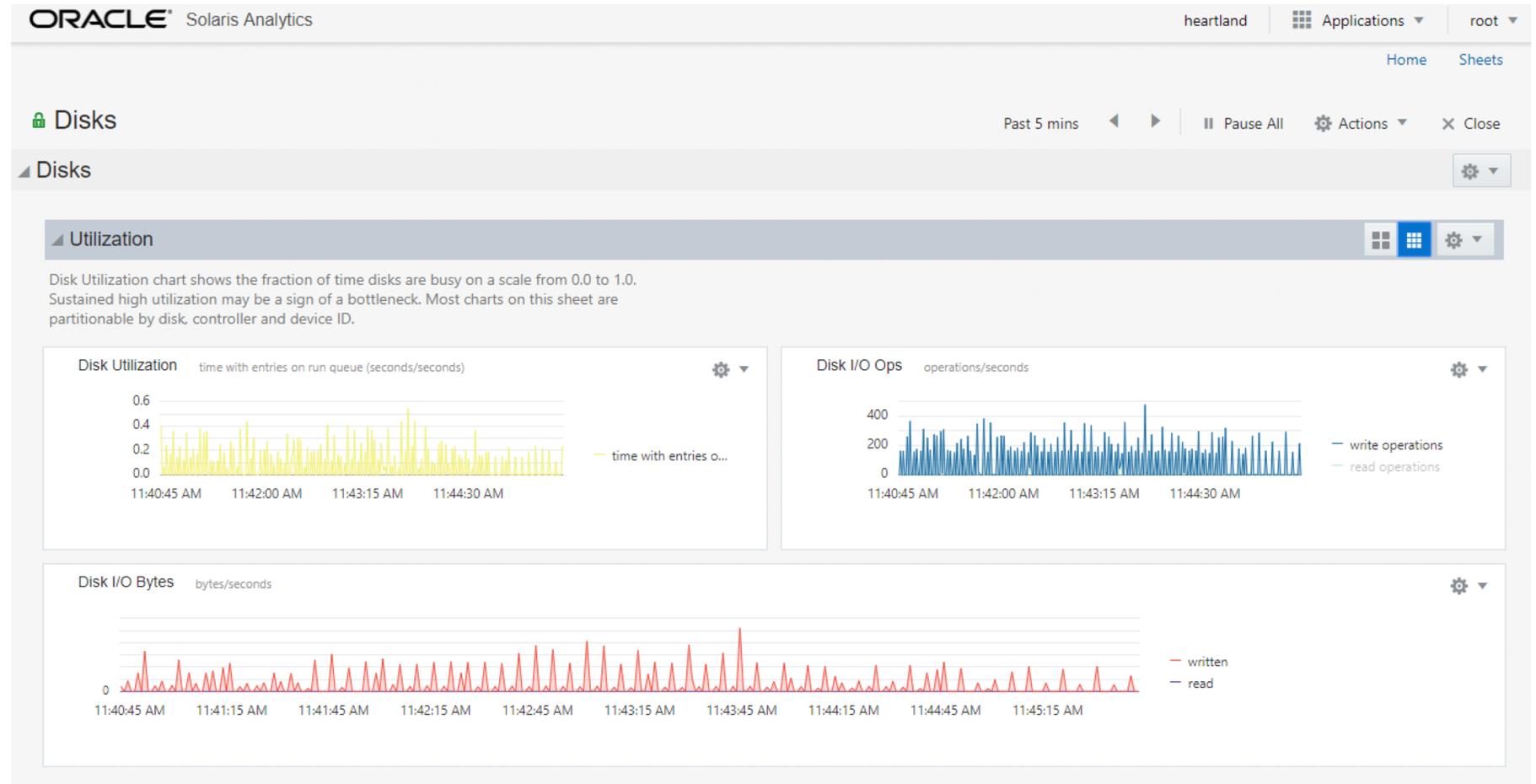
- Processor utilization



# WebUI

svc:/system/webui/server

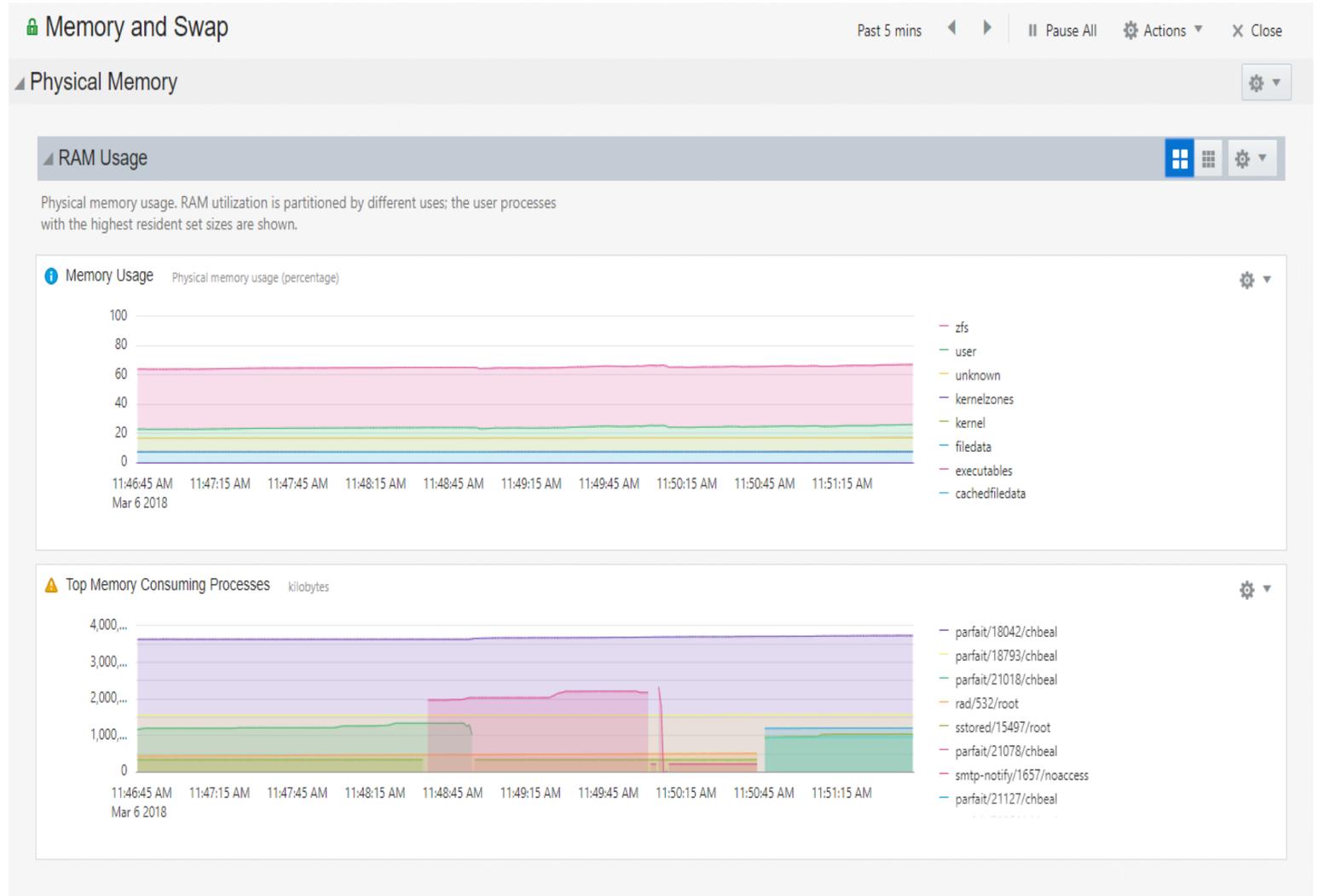
- Disk Utilization



# WebUI

`svc:/system/webui/server`

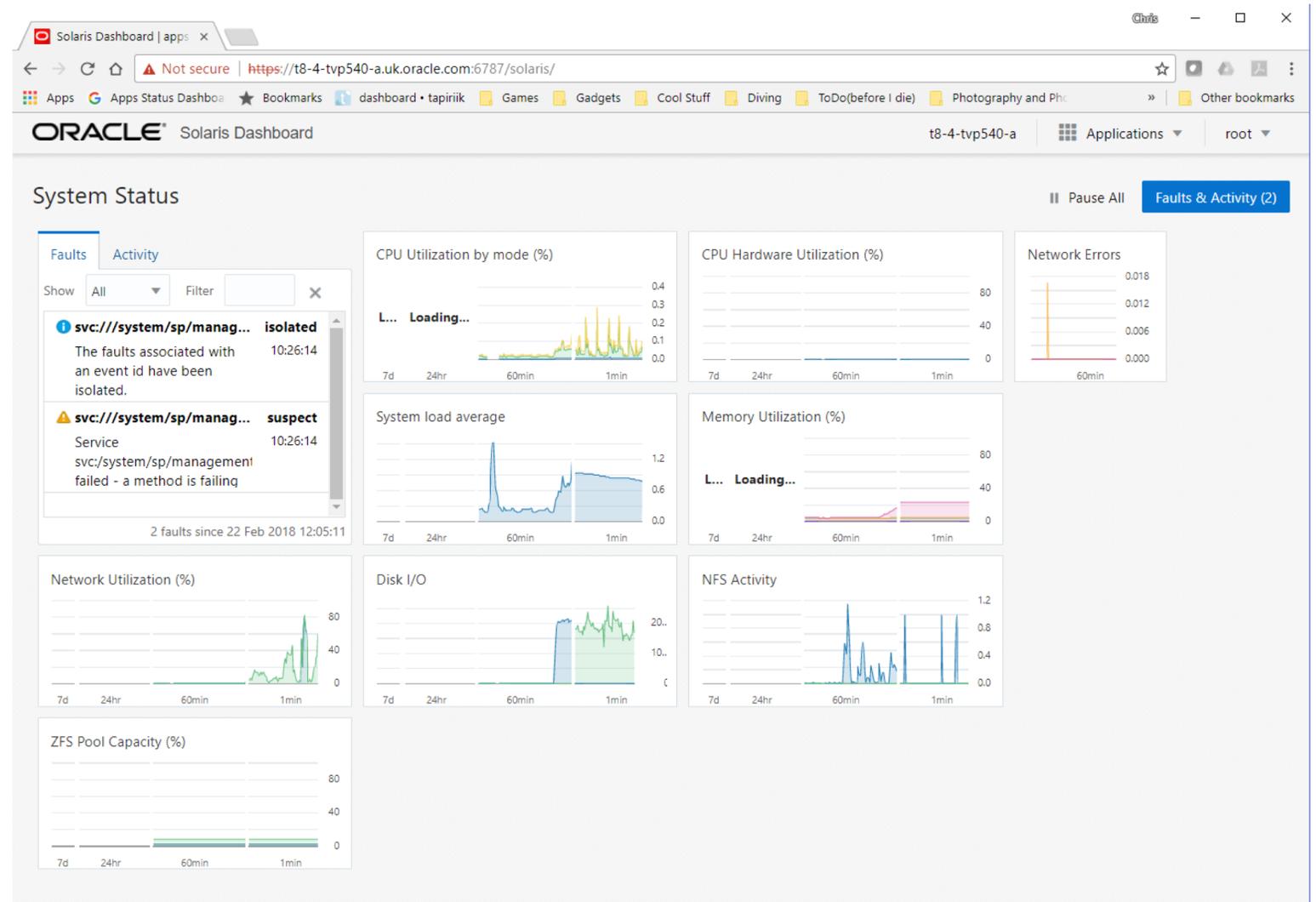
- Memory Utilization
- Some additional stats are being collected by sstore now



# WebUI

`svc:/system/webui/server`

- FMA faults and defects
- Audit events



# WebUI

svc:/system/webui/server

- FMA faults and defects
- Audit events

**System Status**

Faults Activity

Show All Filter

**sw:///path=/var/crash/data/56a3b78!**  
The system has rebooted after a kernel p  
The following are potential bugs. stack[0]  
matching bugs found.

1 faults since 13 Feb 2018 17:09:55

**System Status**

Faults Activity

Show All Filter

<b>privileged execution</b>	17:13:17
chbeal (root:root) success	success
privileged execution on tetrad /usr/sbin/psradm /space/home/chbeal psradm -n 1	
<b>p_online(2)</b>	17:13:17
chbeal (root:root) success	success
p_online(2) on tetrad	

100 events since 15 Feb 2018 9:21:34

# Demo

# WebUI User Manager

pkg:/system/management/webui/webui-usermgr

The screenshot shows the Oracle Solaris Account Management web interface. The browser address bar indicates the URL `https://t8-4-tvp540-a.uk.oracle.com:6787/solaris/apps/usermgr`. The page title is "ORACLE Solaris Account Management". The user is logged in as "root". The "Accounts" section is active, showing options to "Add", "Modify", "Delete", and "Defaults". The "Select Account to Modify" section includes radio buttons for "Files" (selected) and "LDAP", and a search box containing "username prefix". The "Manage User Attributes From" section includes radio buttons for "Local Host Files" (selected), "LDAP: unqualified", "LDAP: qualified by hostname", and "LDAP: qualified by netgroup". A table lists the accounts:

User Name	User ID	Type	Full Name
jack	100	normal	lab user
root	0	normal	Super-User

# WebUI User Manager

pkg:/system/management/webui/webui-usermgr

The screenshot shows a web browser window with the Oracle Solaris Account Management interface. The browser address bar shows the URL `https://t8-4-tvp540-a.uk.oracle.com:6787/solaris/apps/usermgr/general`. The page title is "ORACLE Solaris Account Management". The user being managed is "joeb". The interface includes a navigation menu on the left with options like General, Password, Groups, Shell, PAM Policy, Access Times, Audit Classes, Roles, Rights Profiles, Default Project, Labels, Authorizations, Privileges, and Attribute Summary. The main content area shows the "General" tab with the following fields:

General	
User Name	joeb
Scope	Files
Full Name	Joe Blogs
User ID	<input type="text"/>
Home Directory	/export/home/joeb
Account Type	<input checked="" type="radio"/> Normal <input type="radio"/> Role
Role Assumption	<input type="radio"/> Require User's Password <input type="radio"/> Require Role's Password

# Software Defects and Alerts

- Software failures as well as Hardware
  - Notification of panic and SMF events
  - As we have seen, appear in sstore and in WebUI
- Alerts for less serious events
  - Show up in fmadm list-alert
    - Core dumps
- Automatic matching of known bugs
  - Also shown via fmadm output

# Software Defects and Alerts

```
heartland:chbeal:~
System Component
  Manufacturer      : Oracle Corporation
  Name              : SUN FIRE X4170 M2 SERVER
  Part_Number       : 30390441+1+1
  Serial_Number     : 1204FMM0A0
  Firmware_Manufacturer : American Megatrends Inc.
  Firmware_Version  : (BIOS)08140112
  Firmware_Release  : (BIOS)08.03.2016
  Host_ID           : 008c5bfa
  Server_Name       : heartland

-----
Suspect 1 of 1 :
  Problem class : alert.oracle.solaris.utility.corediag.dump_available
  Certainty    : 100%

  Resource
    FMRI        : "sw:///path=/usr/bin/rm#:token=22ce12cc3f3ae0aeab2d83c7fe38265383589098b4702b7b13ae92953248b33d"
    Status      : Active

  Description : A diagnostic core file was dumped in
               /var/diag/3ce17727-8699-4aa9-bb1a-e60f7262c831 for RESOURCE
               /usr/bin/rm whose ASRU is . The ASRU is the Service FMRI for the
               resource and will be NULL if the resource is not part of a
               service. The following are potential bugs.
               stack[0] - 16356301

  Response    : The diagnostic core file will be removed and a json format core
               data summary file will be generated in
```

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