

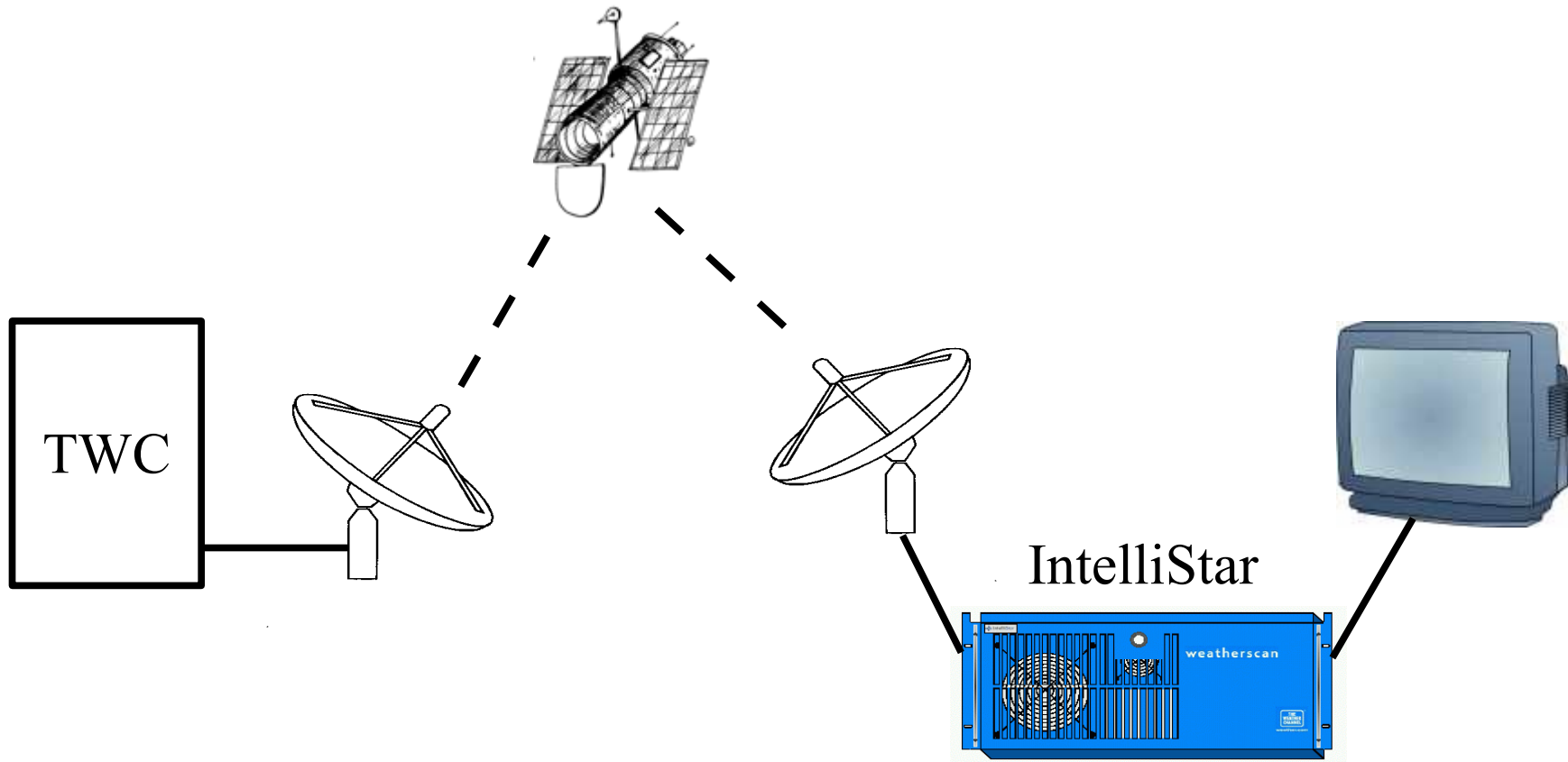
Using FreeBSD to Render Realtime Audio & Video

John H. Baldwin
The Weather Channel

Topics

- What is a Weather STAR?
- Demonstrate Video Rendering
- Changes made to FreeBSD
- FreeBSD Issues
- Scripted Installs

Where STARs Live



Weather STAR's Tasks

- ◆ Collect and Store Relevant Weather Data
- ◆ Render Weather Presentations Using the Stored Data
 - ◆ Local Forecast Products
 - ◆ Sensor Line

Video Rendering

- ♦ Draw Graphical Objects
- ♦ Display Live Video
- ♦ Simultaneous NTSC (Analog) and ASI (MPEG Digital) Output

Sample Products



Changes to FreeBSD

- ACPI Backported to Support Soft Off
- Driver Updates and Fixes
- Installation Program Improvements

FreeBSD Issues

- ◆ Nice is too Unnice
- ◆ Userland Threads
 - ◆ Large read(2)s Broken Up
 - ◆ Thread Priorities
 - ◆ Scheduling Signal
 - ◆ FreeBSD 5.x

Scripted Installs

```
# Choose install type and perform install
command=sh /stand/installtype.sh
system
configFile=/stand/doinstall.cfg
loadConfig
```

```
dialog ... > /tmp/foo
read itype < /tmp/foo
echo "configFile=/stand/${itype}.cfg" > \
    /stand/doinstall.cfg
echo "loadConfig" > /stand/doinstall.cfg
```

install.cfg

installtype.sh

```
package=apache
packageAdd
```

```
package=postfix
packageAdd
```

web.cfg

mail.cfg

Conclusion

- Weatherscan Deployed in Q1 2003
- Core U.S. Network Scheduled for 2004
- Q & A