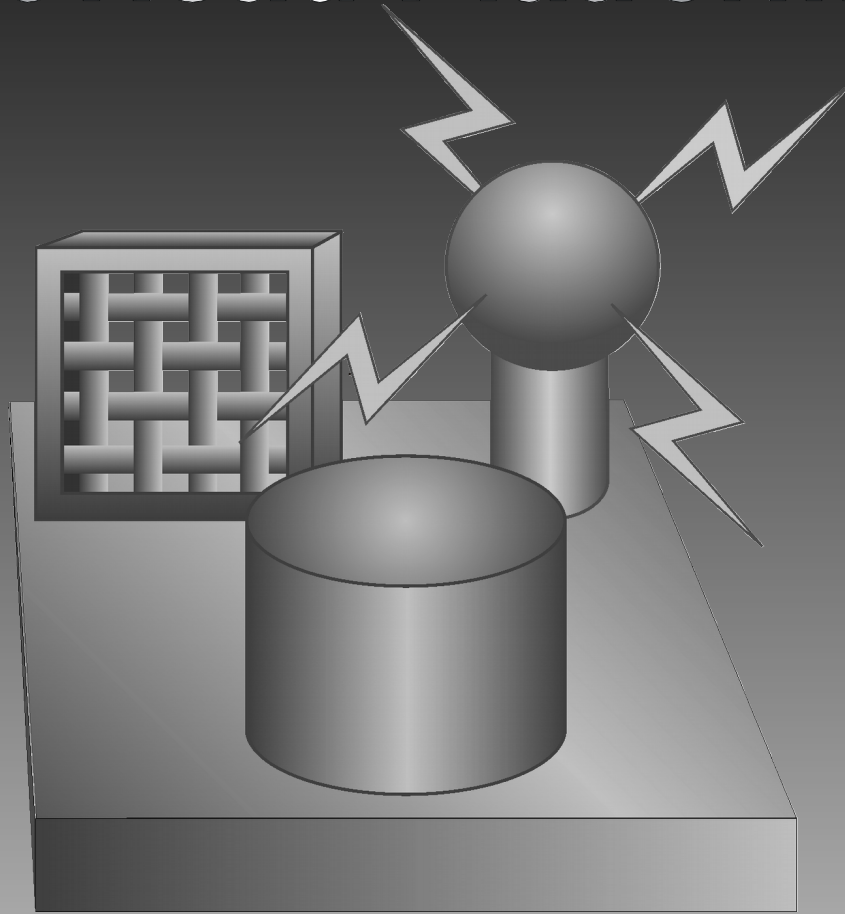


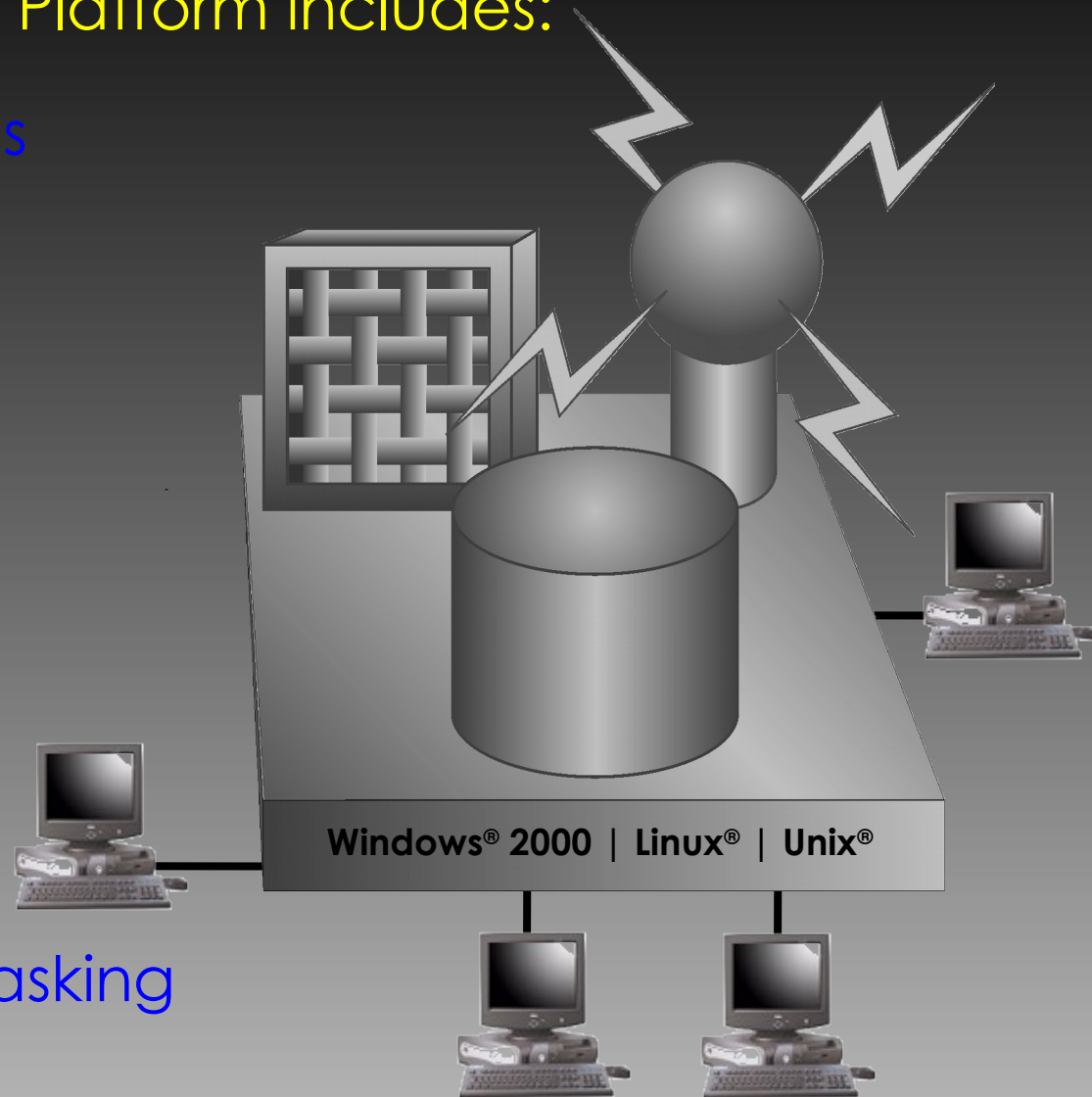
Universal Test Head Platform



Remotely Test Any Networked Equipment

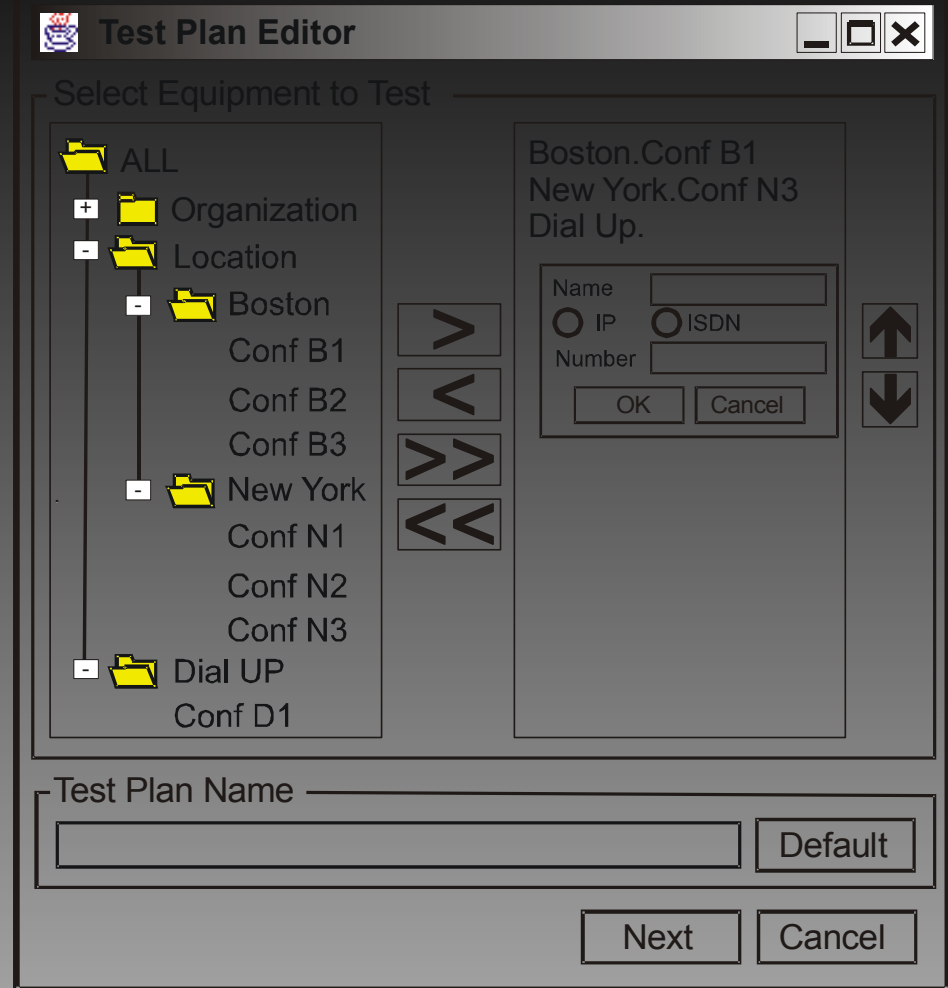
Universal Test Head Platform includes:

- Multiple Test Heads
- Scheduler
 - Resource Balancing
- Database:
 - Equipment
 - Links
 - Equipment History
 - Test History
 - Test Library
- Multi-User, Multi Tasking
 - Java / XML



Equipment & Link Selection

- Is Tree-Based,
with base folders for:
- Organization
 - Location
 - Or whatever directory structure you need.
 - Any level can have symbolic links with names of your choice.
 - Dial any End Point not in database



Equipment & Link Selection

Can also be Map-Based
Or Grid Based.

- Same screen can show status and alarms
- Work in the most convenient way

Map Status View: All Active Device Set: All
Grid Service State: All Alarm Filter: All

Device Inventory: Zoom In Zoom Out Zoom Area Default Zoom

Device Name	Make and Model	Device ID	Location	Service State	Device Alarms	ISDN Video Alarms	IP Video Alarms
Real System 9	Real	10	Initia South	In Service	Unknown	Unknown	Unknown
Microsoft Media	Windows	11	Initia South	In Service	Unknown	Unknown	Unknown
TC2000 for Rea...	Tandberg 2000	13	Initia South	In Service	Unknown	Unknown	Unknown
Polycom VSSP F...	Polycom VS SP	14	Initia South	In Service	Unknown	Unknown	Unknown
TC6000	Tandberg 6000	15	Initia Yukon	In Service	Unknown	Unknown	Unknown

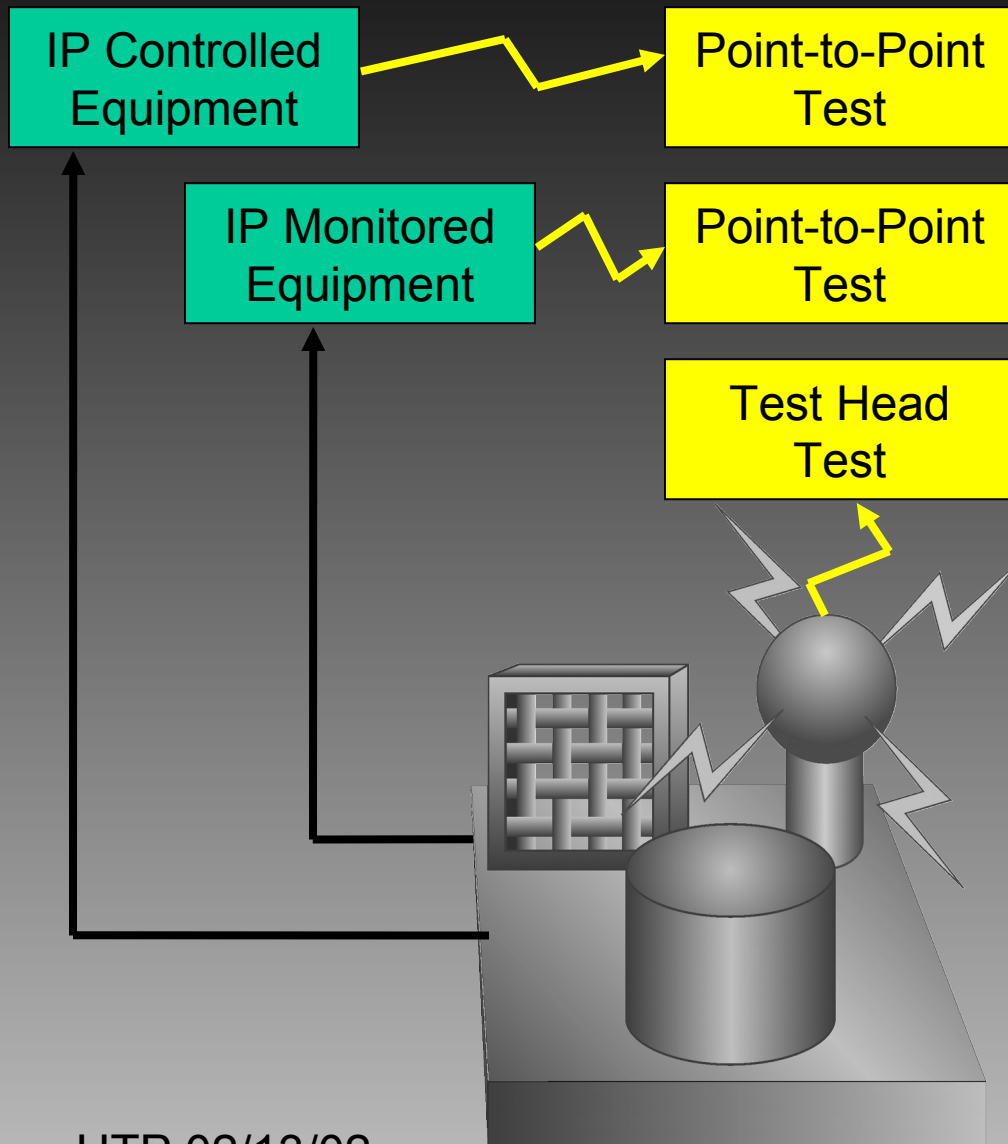
Map Status View: All Active Device Set: All
Grid Service State: All Alarm Filter: All

Device Inventory: AccessSwit... AccessSwit... AccessSwit...
Polycom VS... Polycom VS... TC2000 for... TC6000 TC800
TC800 - Vi... VCON ViGO1 VCON ViGO2
Microsoft ... Real Syste...
ISDN Test ...

Primary Key: Type Secondary Key: Name Ascending Sort

Device Name	Make and Model	Device ID	Location	Service State	Device Alarms	ISDN Video Alarms	IP Video Alarms
Real System 8	Real	10	Initia South	In Service	Unknown	Unknown	Unknown
VCON ViGO1	VCON ViGO	18	Initia South	In Service	Unknown	Unknown	Unknown

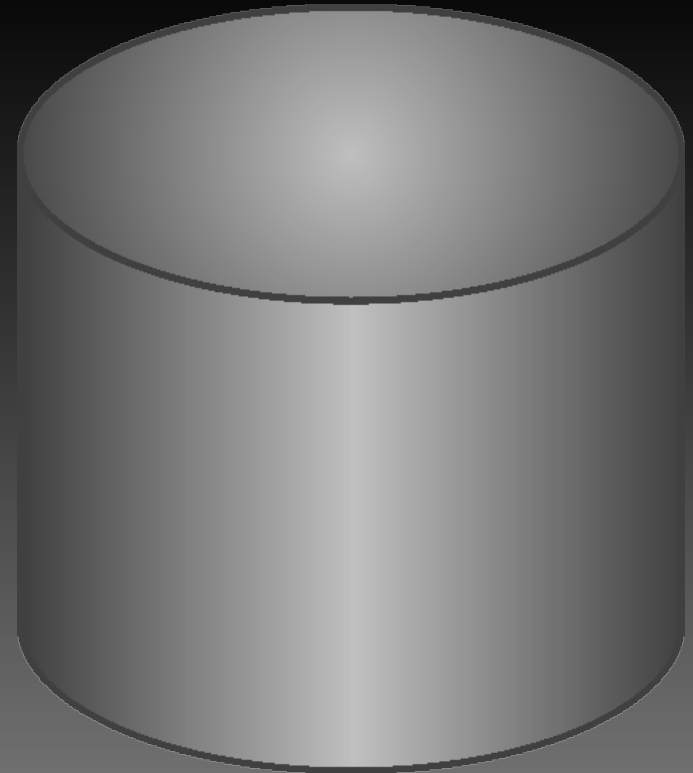
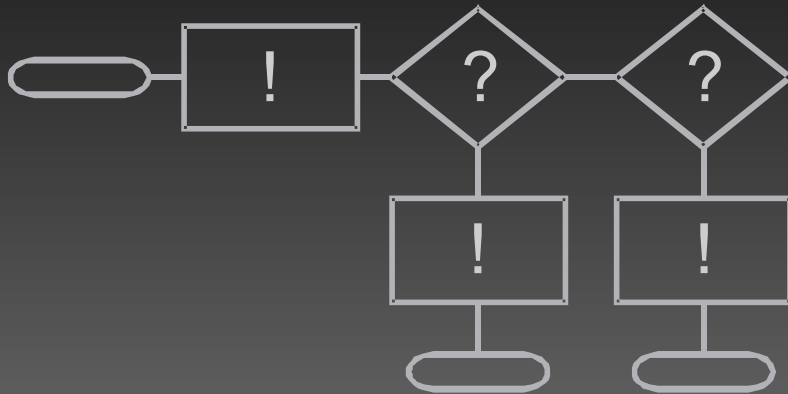
Equipment & Link Selection



- Specifies Equipment and/or Links to test
- Determines Networks and Protocols
- Determines Test Head type(s)

With IP controlled or monitored equipment, you can test point-to-point as well as Test Head-to-End Point.

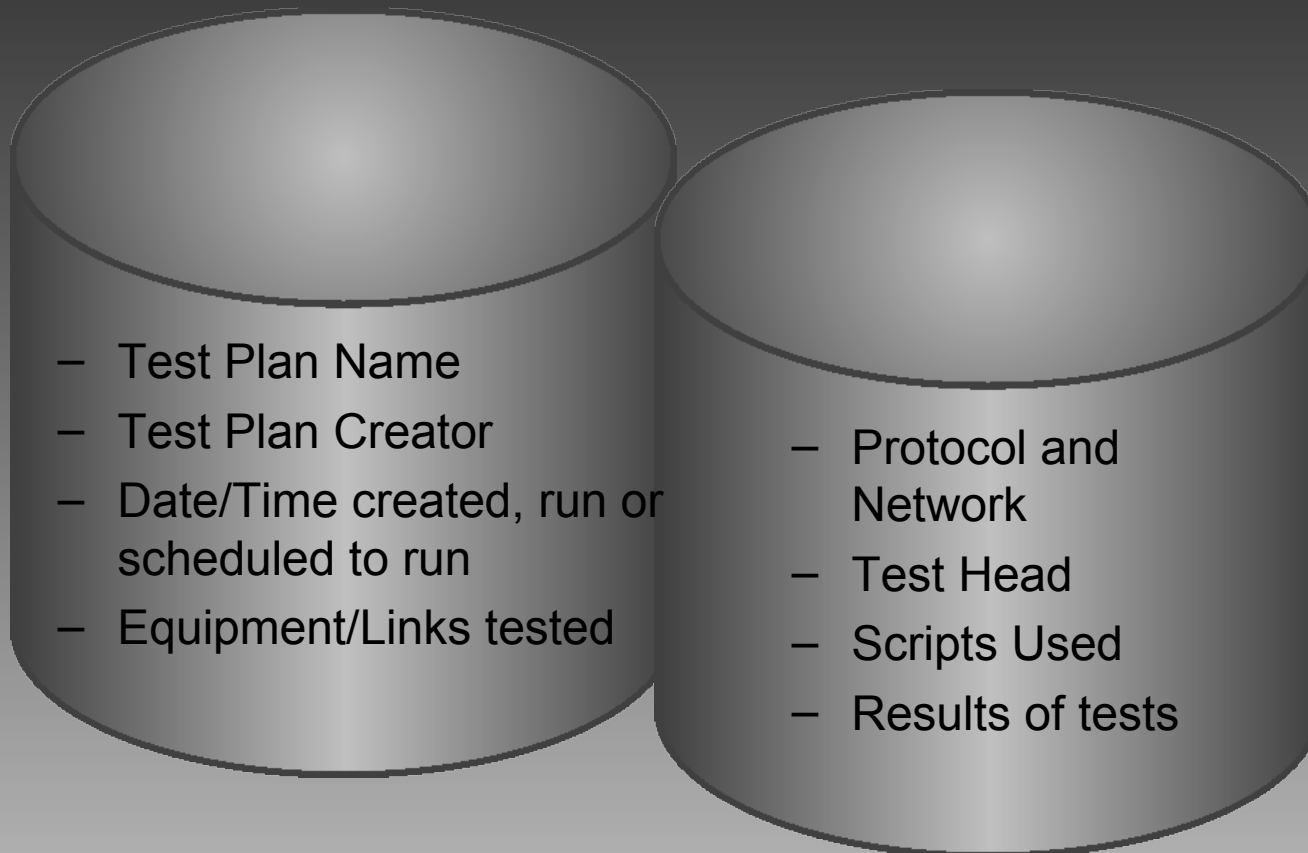
Test Scripts



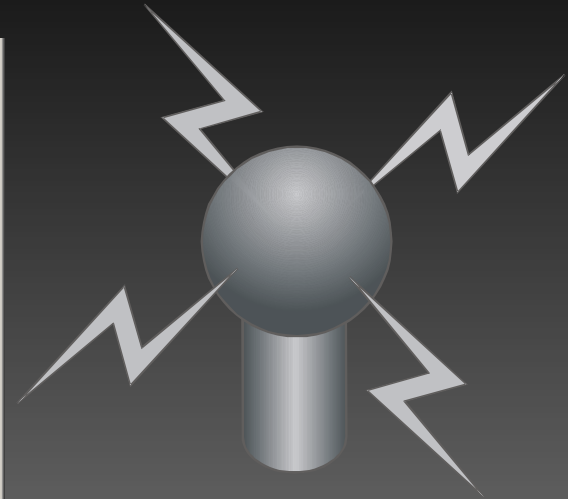
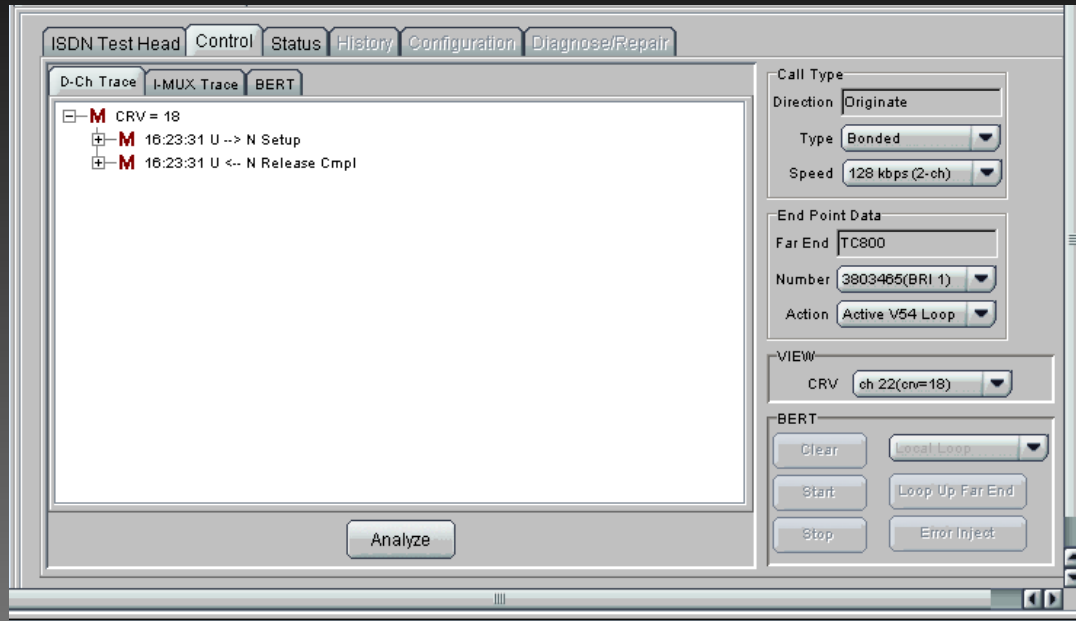
- Specify which tests to run.
- Pre-built scripts can run multiple tests with branch logic to automate problem diagnosis.
- At the end of a script, the UTP Analyzer will translate the results into a probable cause, and a suggested action.

Test Plan Library/History

You can find a Test Plan again for reuse:

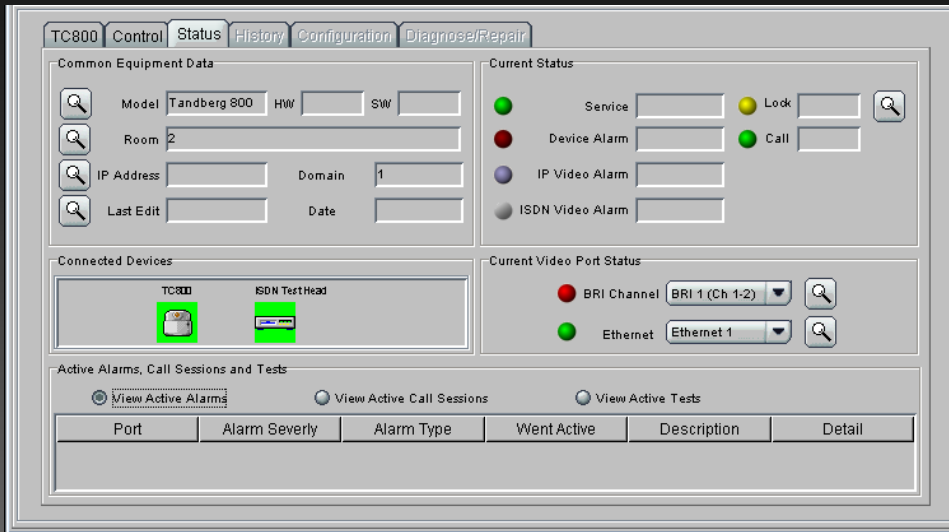


Test Parameters & Results



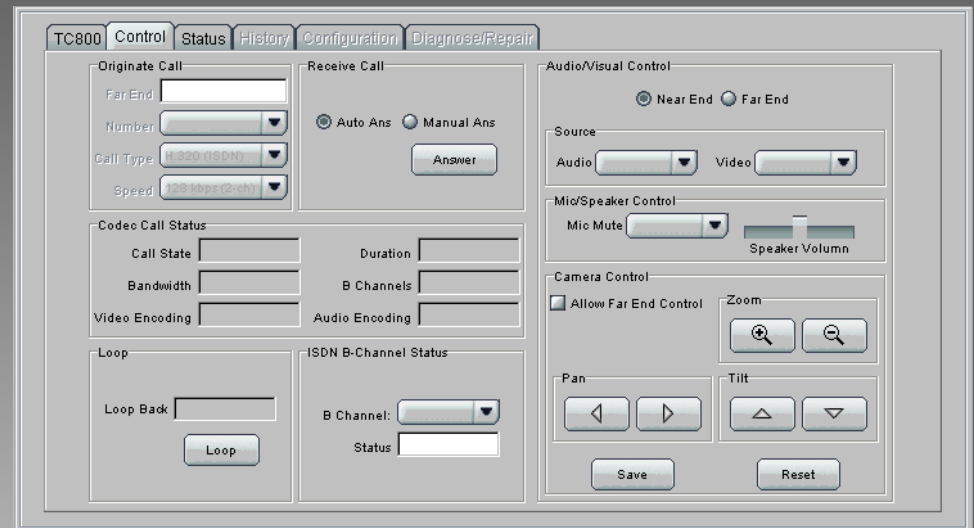
- The defaults are appropriate most of the time
- The pre-built scripts may have “tuned” parameters
- You can “tune” your own special-case tests within the limit of the Test Head
- Additional tests can run based on the return code or test results

Device Status & Control



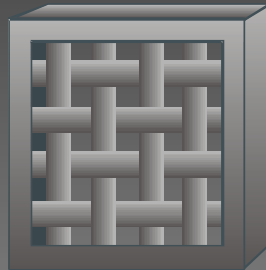
Status can be reported based on data received from the device or from other systems

Supported devices (with a well defined API and device driver) can be controlled from the Universal Test Head Platform



Scheduling

- Run now, interactively
- Run once
- Run daily
- Run weekly
- Run Monthly



Test Plan Scheduler

Test Plan Name: _____

Run Now (Click Next)

Schedule (Select Times)

Once Start at: 12:00 on Feb 07 2002

Hourly Start at: 00 minutes after the hour

Daily Start at: 12:00 on Monday Friday
 Tuesday Saturday
 Wednesday Sunday
 Thursday

Weekly Start at: 12:00 every Monday

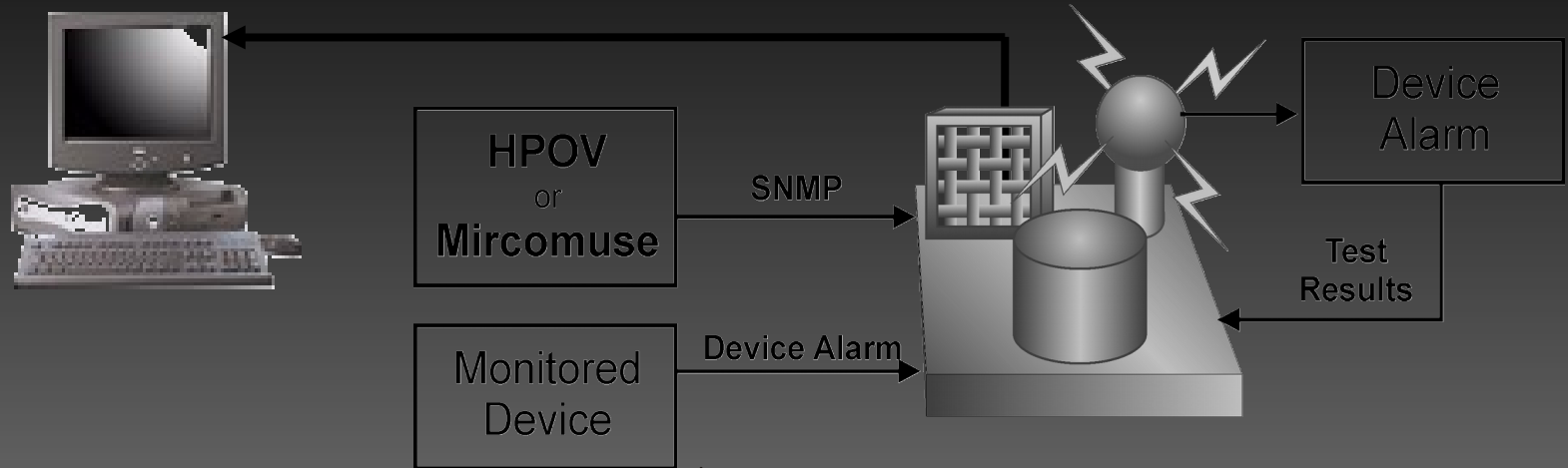
Monthly Start at: 12:00 on the 01 day of the month

Back Next Cancel

Test Before Use

Insure Equipment and Link Availability

Monitoring & Ticketing



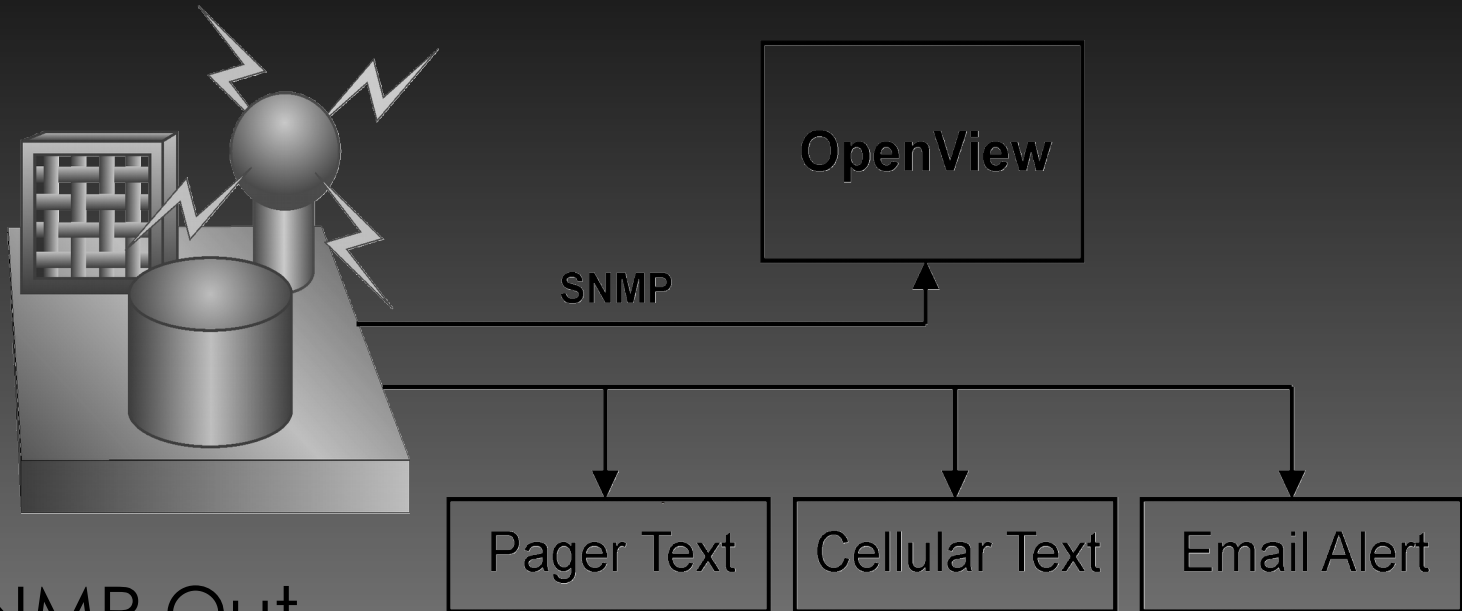
- SNMP In

- We'll **initiate automatic, script-based testing**

- When HPOpenView or Micromuse tells us that something is wrong
 - When End Points or Network Elements tell us that something is wrong

- We'll accept a Trouble Ticker identifier and return it with test results

Monitoring & Ticketing



- SNMP Out

- We'll **tell** HPOpenView or Micromuse when we find something wrong

- Text Out

- We'll even send pager text, cell phone text, or email wherever it needs to go for rapid response and repair

The Past Leads to the Future

The screenshot displays a network management interface with three main components:

- Test History Search:** A sidebar with search criteria including Test Status, Video, Test Config, Test Desc, Device Type, User, Start Date, End Date, Device ID, and Test ID. A Search button is located at the bottom.
- Alarm History:** A table listing various alarms with columns for Device Name, Make and Model, Location, Port, Severity, Alarm Type, Active, Cleared, and Description.
- Details:** A panel showing specific alarm information for a selected entry, including Device Type, Device ID, Port, Severity, Location, Alarm Type, and Alarm Description.

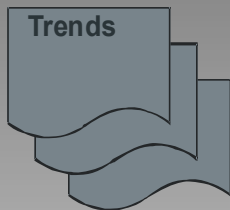
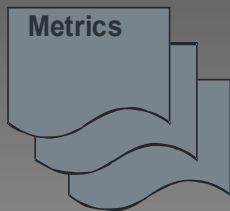
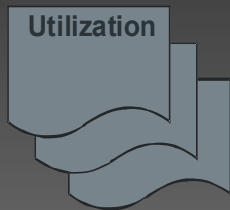
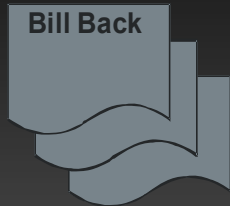
De...	Device Name	Make and Model	Location	Port	Severity	Alarm Type	Active	Cleared	Descriptio
	Access Switch	AS200	Initia South	NA	Comms Down	Control	11-13-2001 16:00:00	11-13-2001 16:10:00	Unable to Connect
	Tandberg	Tandberg 800	New City, NY	NA	Minor	Device	11-13-2001 11:00:00	11-13-2001 11:15:00	IP Video Network
	Tandberg	Tandberg 800	New City, NY	Ethernet 1	Major	IP Transport	11-13-2001 11:00:00	11-13-2001 11:15:00	IP Video Network
	Media Encoder	Dell PowerEdg...	East Amhers	NA	Major	Device	11-13-2001 09:00:00	11-13-2001 09:12:00	Device Failure
	Access Switch	AS60	Pittsburgh	NA	Minor	Device	11-12-2001 17:00:00	11-12-2001 17:08:00	PRI Failure
	Access Switch	AS60	Pittsburgh Conf...	Line 3 Slot 4	Major	ISDN Trans...	11-12-2001 13:00:00	11-12-2001 13:11:00	PRI Failure
	Polycom	Polycom 512MP	East Amherst	NA	Minor	Device	11-13-2001 09:00:00	11-13-2001 09:15:00	Configuration Che

Details:

Device Type: Access Switch
Device ID: 20 (mock up data)
Port: NA
Severity: Comms Down
Location: Initia South
Alarm Type: Control
Initia Alarm Description: Unable to Connect to Device
Device Alarm Detail: Device Not Responding
Alarm Code: 100
Alarm Clear Code: 1000

- A history of Alarms, Test Plans, and Equipment with easy retrieval tools
- Data for Trend Analysis and Predictive Testing

Reporting

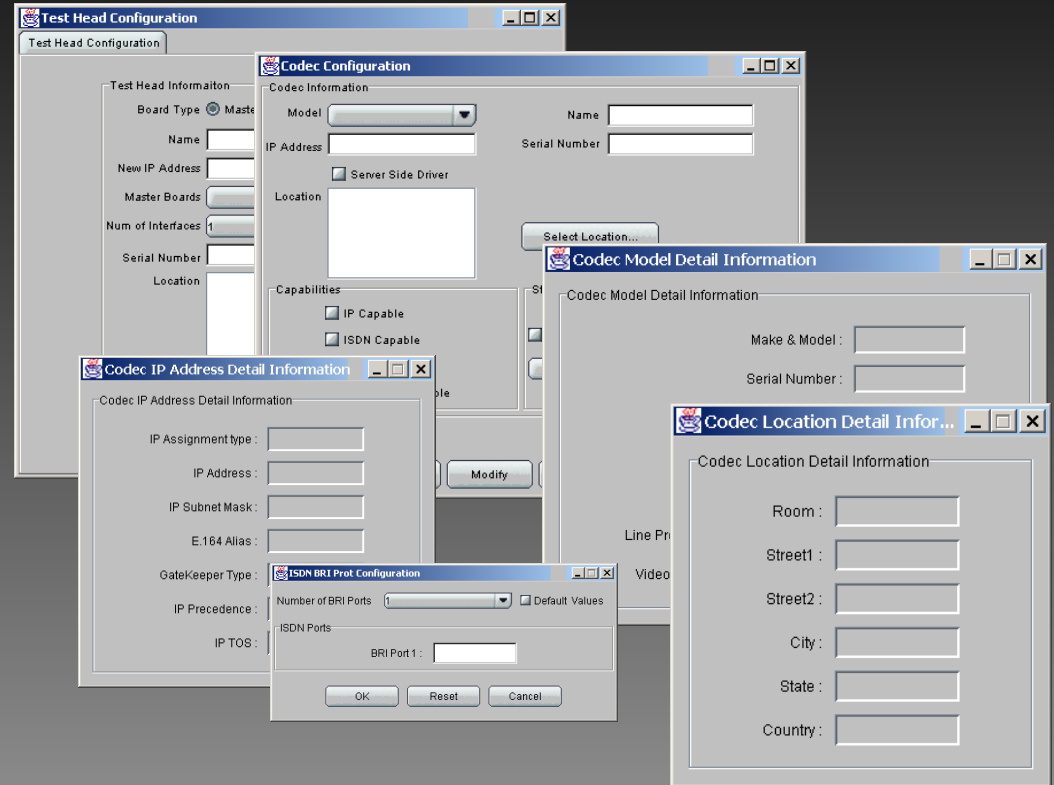


- Billing & Bill Back
 - Time & Materials
 - Incident Peg Counts
- Test Head & Link Utilization
- Metrics
 - Mean Time Between Failures
 - Mean Time to Repair
 - User Error Analysis
- Trend Analysis
 - Proactive Testing
 - Preventive Maintenance

Administration

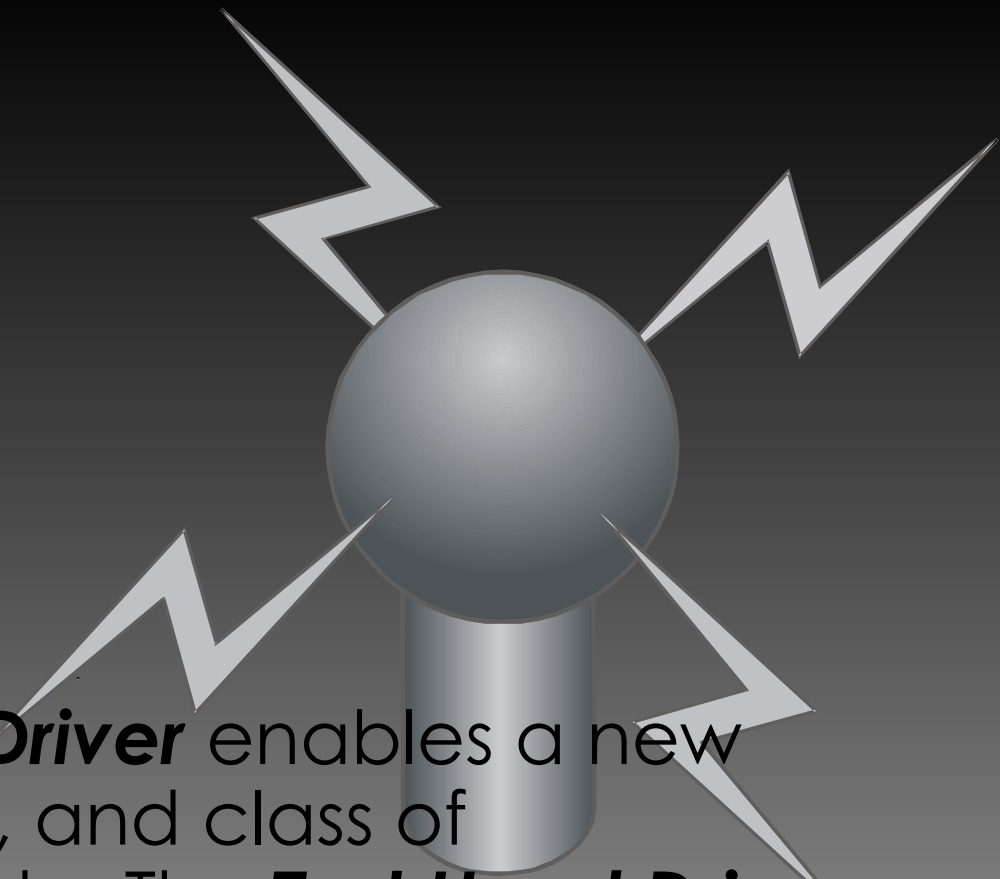
Define each piece of Equipment:

- Make & Model
- Location
- Links
 - Link Type
 - Link Address



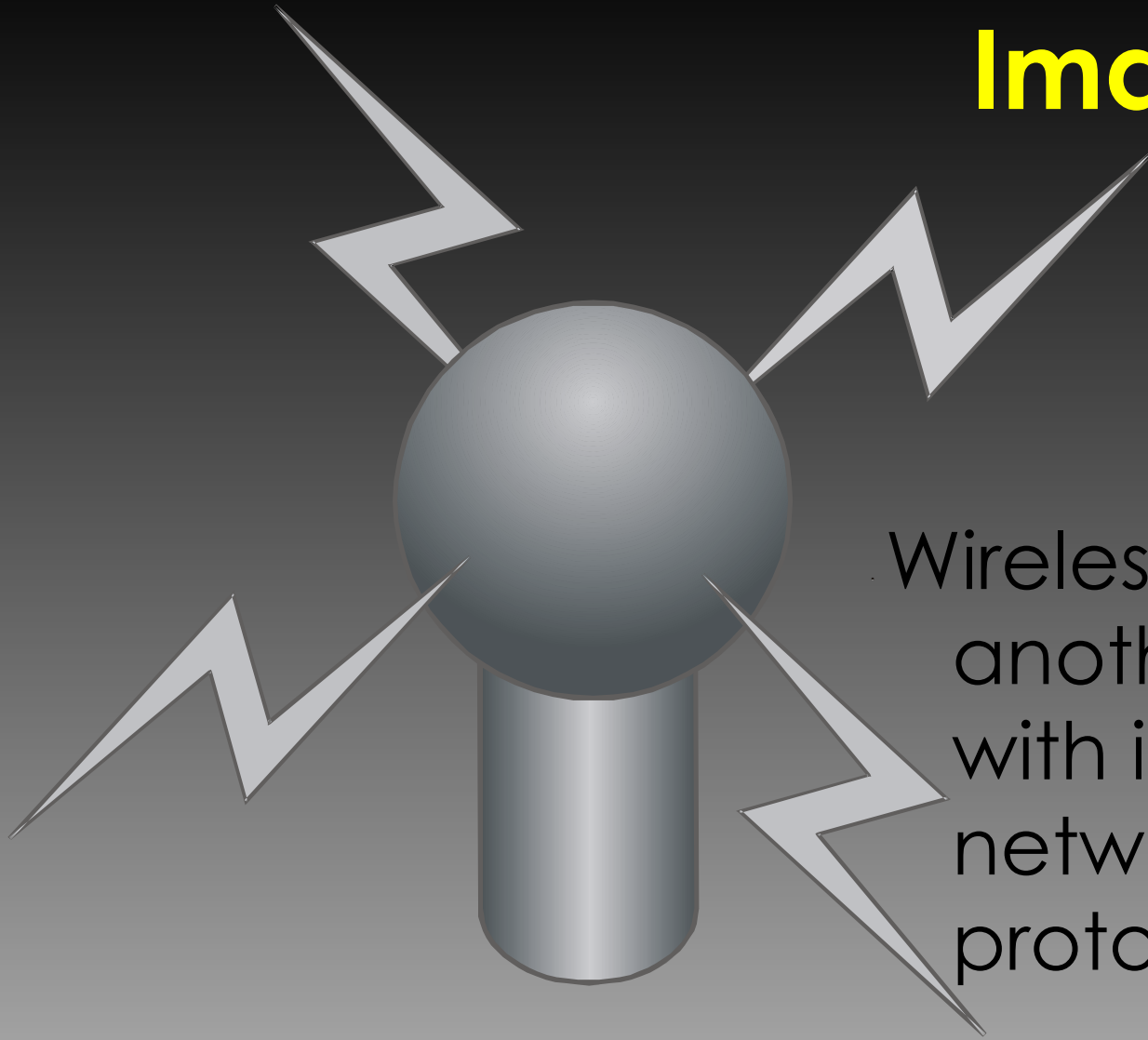
Add optional information for faster vendor response: serial number, hardware revision level, software version, access contact, circuit ID, circuit termination location.

Customization



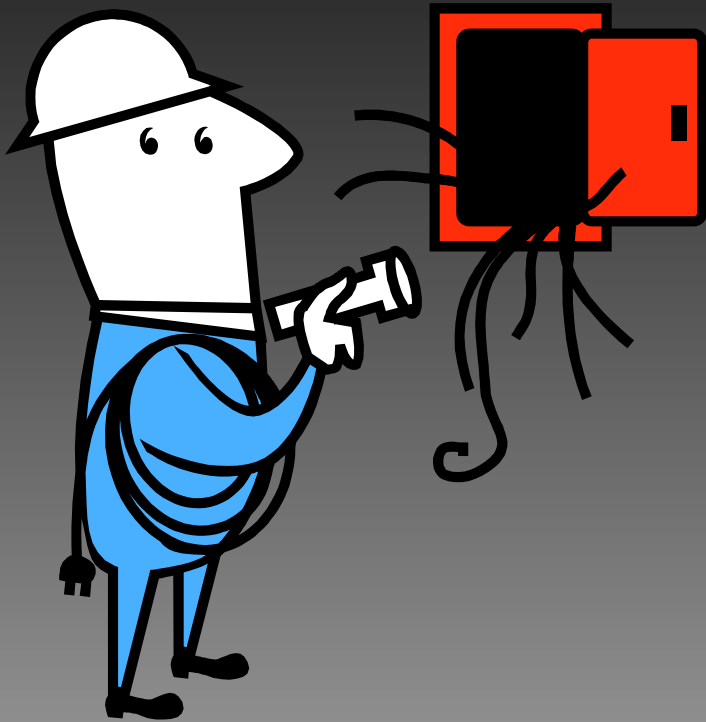
A new **Test Head Driver** enables a new network, protocol, and class of equipment and links. The **Test Head Driver** includes the schema for the administration of the new class of equipment and link objects.

Imagination



Wireless is only another Test Head with its own network and protocol.

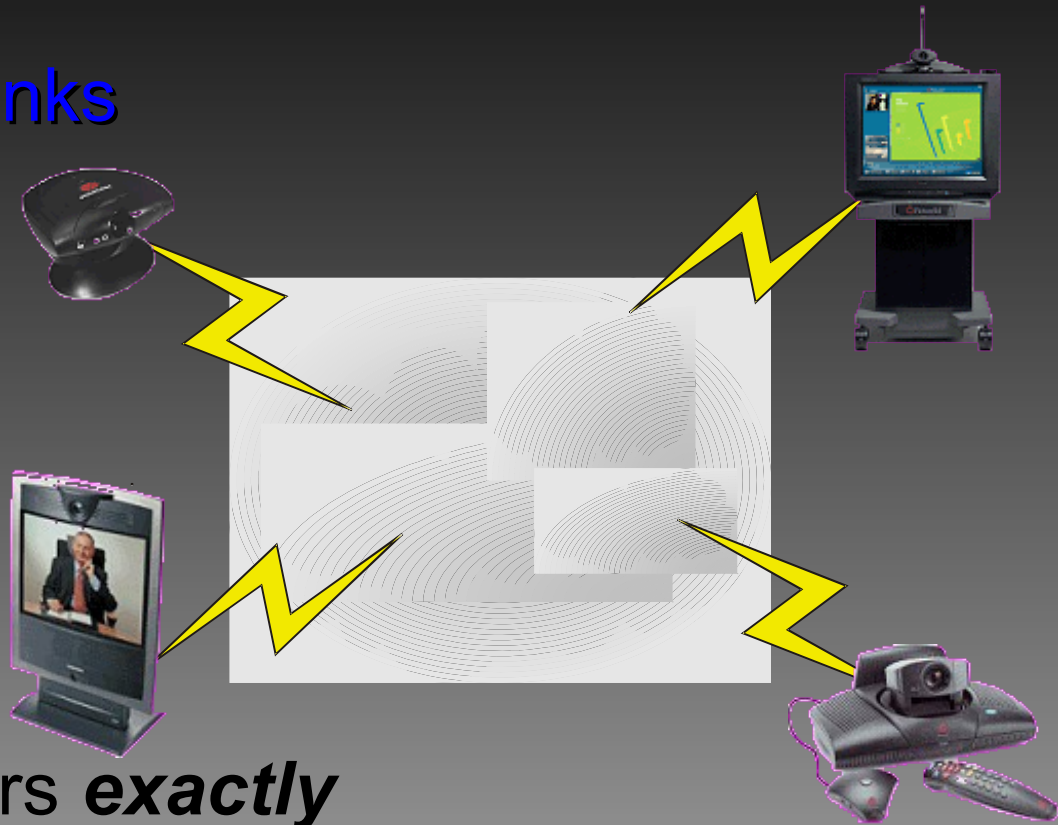
Fix it Fast



Plan Ahead

Optional Database Information

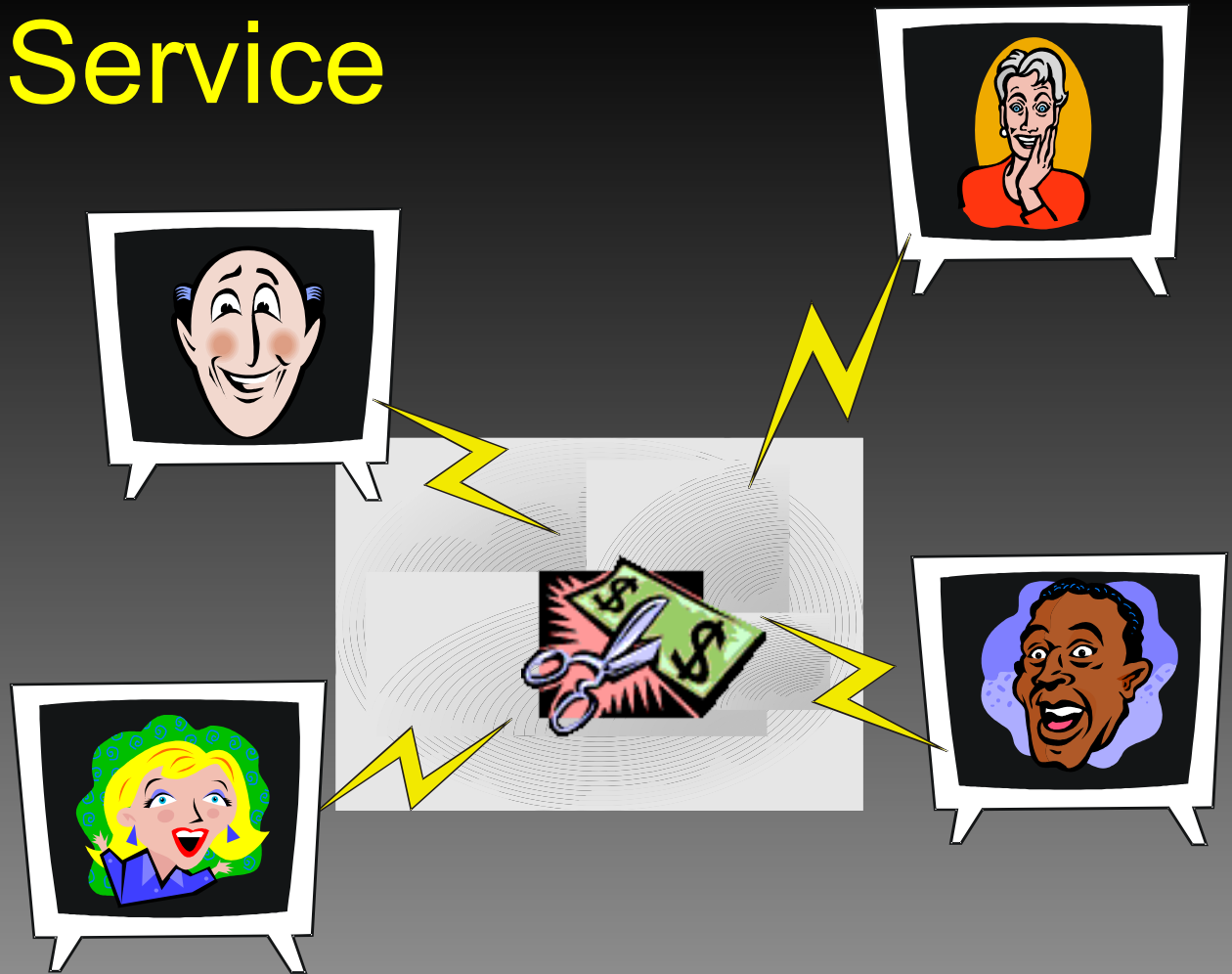
Equipment & Links



Tell your vendors ***exactly***

- What Needs to be Fixed
- Where to Find it (rooms, wire closets, circuit IDs)

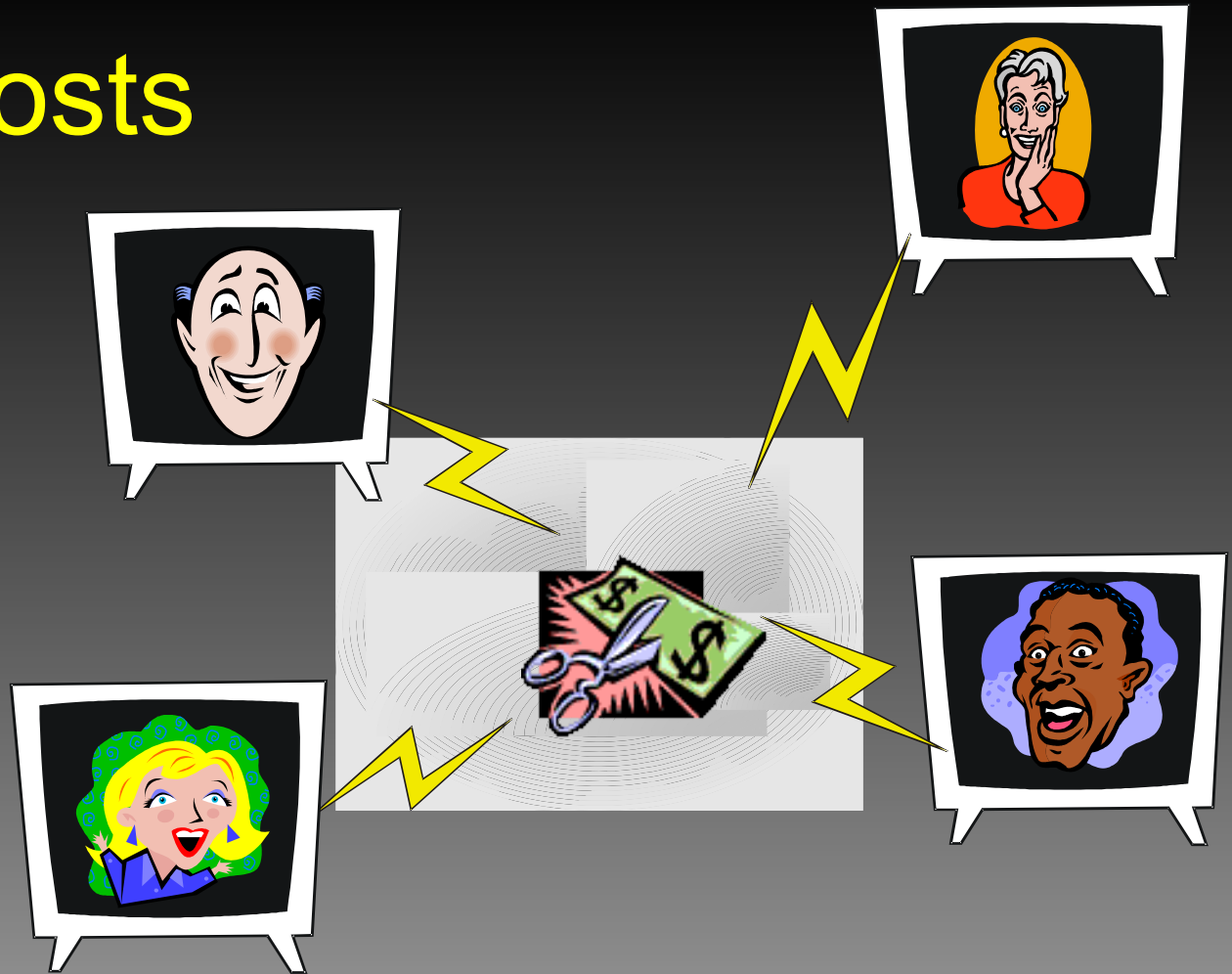
Improve Service



Satisfied Customers
Faster Response

Improved Reliability
Higher Service Quality

Lower Costs



Service Level Agreements
are Practical and Profitable

Universal Test Head Platform

