

IMPACT[®]

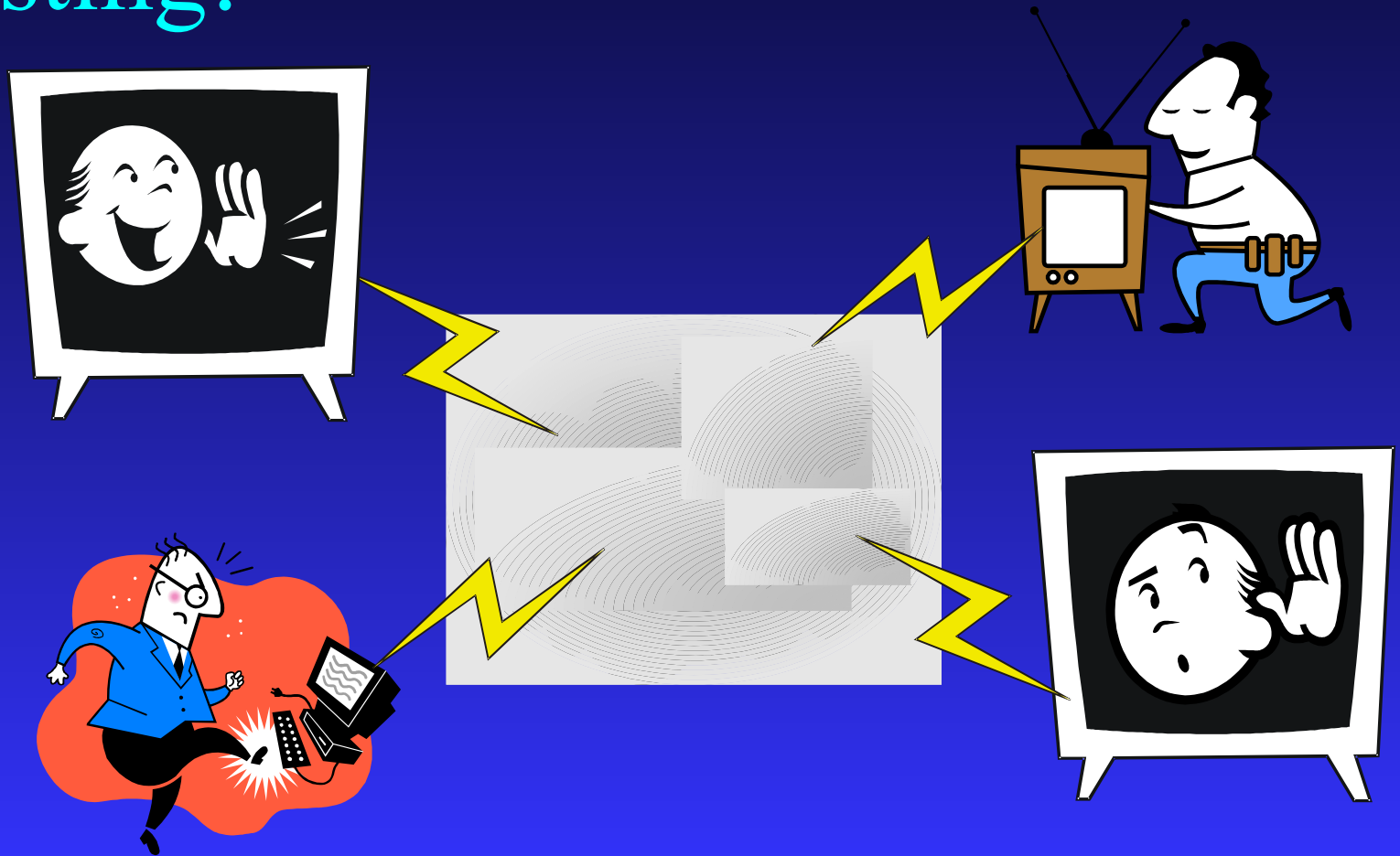
H.320 / H.323 Videoconferencing

Carrier Grade Reliability / Enterprise Simplicity

Network Management

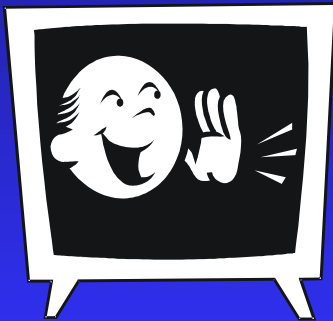
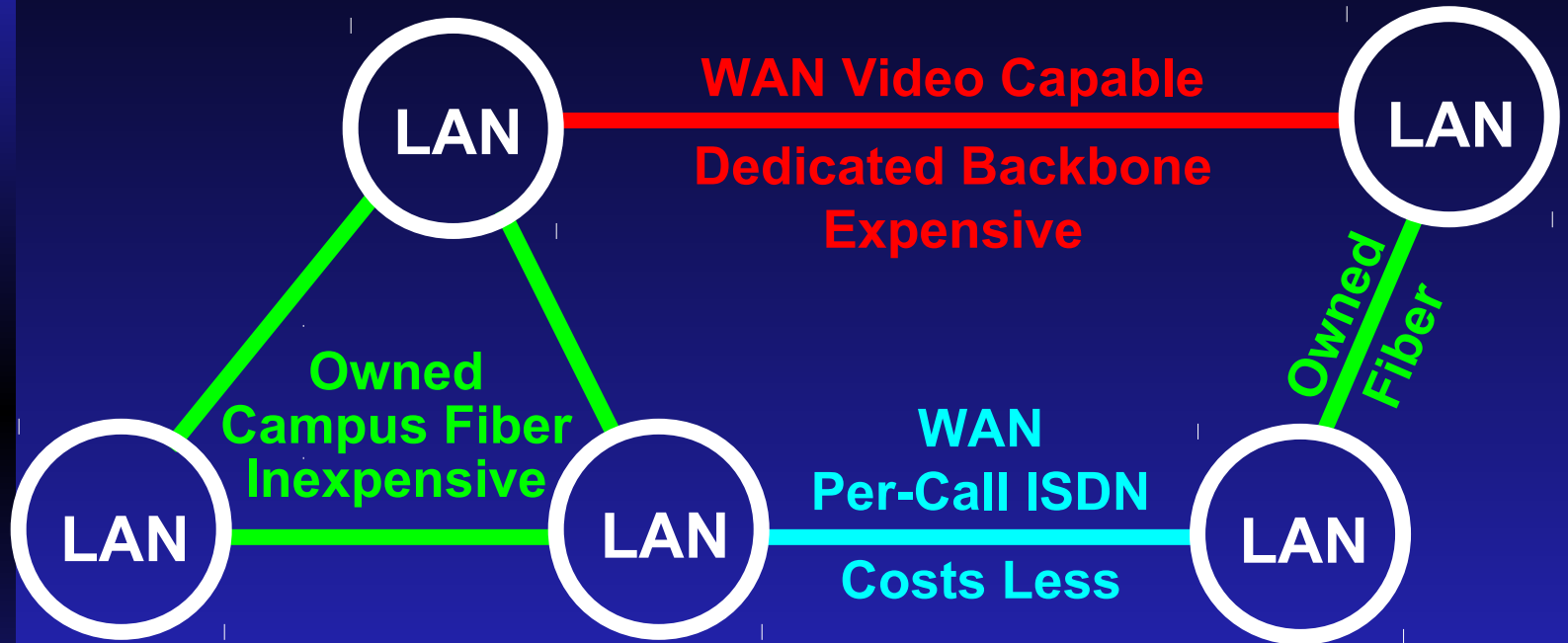
Operation Support System

I wish there was some simple way to manage video conference testing!

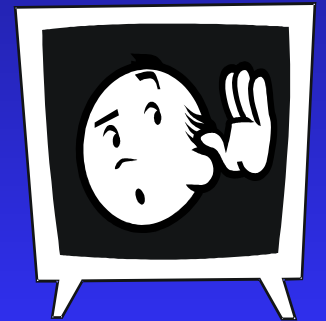


Tandberg — Polycom

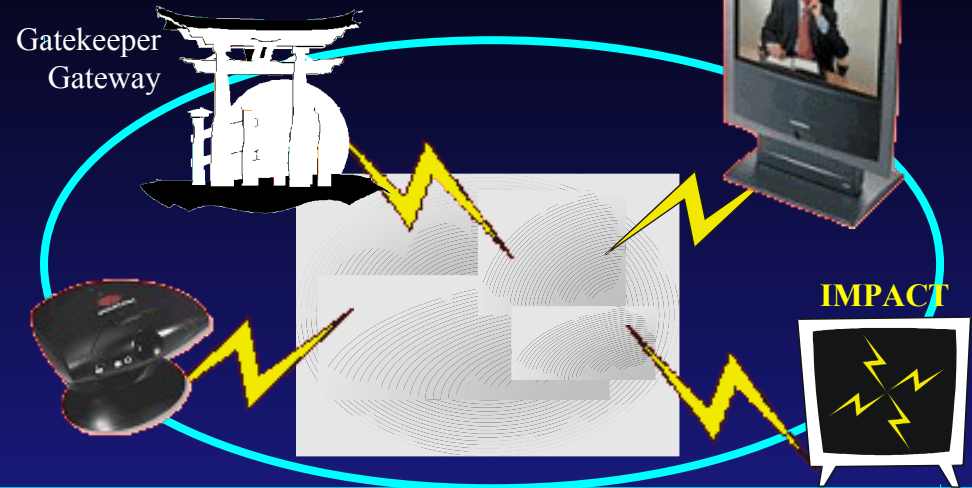
IP & ISDN available on all major models!



Mixed **IP/ISDN** Networks
Not Just the Past
The Future



Tandberg — Polycom



- Full management of own codecs, partial management of other manufacturer's codecs.
- Neither includes reactive or preventive testing — neither manufactures test equipment!
- IMPACT works with **both**, or ***all by itself***.
- IMPACT works with ***any*** video conferencing equipment.

Manage Video Conference Testing!

Easy as 1, 2, 3



- 1. Select equipment & test conditions.**
(Even test switches, MCUs, gateways & gatekeepers)

A screenshot of a software interface for video conference testing. The interface is divided into several sections. On the left, there is a 'Call Data' dialog box with fields for 'Far End' (ESC-134 (IP)), 'FE E.164' (7323803468), 'Far End IP' (192.168.237.134), 'Call Type' (H.323 (IP)), and 'Speed' (128 kbps (2-ch)). There is a checkbox for 'Provide Loopback for Far End' and a 'Start Loopback' button. Below this is another dialog box with fields for 'Direction' (Originate), 'Type' (Bonded 64K), 'Speed' (128(2 Channel)), 'Far End' (Sony - HW Lab), 'Number' (23803465(isdn)), 'Num Type' (National), 'Action' (Provide Loopback), and 'Service' (OFF). On the right, there is a 'Configuration' window with a tree view showing a network topology. The tree view includes nodes for 'Albany', 'Headquarters', 'Test Lab', 'Test Head 102', 'Eatontown', 'T-Synergy Eatontown', 'Server Room', 'Test Lab', 'Escort 134', 'H323 Analyzer', 'LVG GK+GW', 'PictureTel - SV', 'Sony - HW Lab', 'Test Head 101', and 'VTEL Codec'. There are also icons for 'LOOP', 'ISDN', and 'IP' at the bottom. The 'Destination' field is empty.

2. Schedule testing.

(We'll let you know when a scheduled test fails.)



Configuration Schedule

Frequency Send Alert

Test Name

Select Schedule

Once Start at (hh:mm) on 2003
MM DD YYYY

Hourly Start at: minutes after the hour

Daily Start at (hh:mm) on Monday Friday
 Tuesday Saturday
 Wednesday Sunday
 Thursday

Weekly Start at (hh:mm) every

Monthly Start at (hh:mm) on the day of the month

Soak Start at (hh:mm) 2003
MM DD YYYY

Every minutes apart

Until (hh:mm) 2003
MM DD YYYY

Run times (executed 0 times)

3. Look at the results!

Test ID	Start Time	End Time	Orig Device Name	Dest Device Name	User	Status	Test Result Detail
4	14:00:02 03-17-2003	14:02:25 03-17-2003		Sony (ISDN)	jwiner	Completed	Normal call clearing
5	14:09:10 03-17-2003	14:09:27 03-17-2003	Tand-110 (IP)	ESC-137 (IP)	jwiner	Completed	Equipment 29 is down.
6	14:11:25 03-17-2003	14:11:26 03-17-2003	Tand-110 (IP)	ESC-137 (IP)	jwiner	Completed	The origination device was busy.
7	14:11:57 03-17-2003	14:11:58 03-17-2003	Tand-110 (IP)	ESC-137 (IP)	jwiner	Completed	The origination device was busy.
8	14:12:14 03-17-2003	14:12:18 03-17-2003	Tand-110 (IP)	ESC-137 (IP)	jwiner	Completed	Call failed to Connect.
9	14:13:38 03-17-2003	14:14:56 03-17-2003	Tand-110 (IP)	ESC-137 (IP)	jwiner	Completed	Completed Normally.
10	14:15:08 03-17-2003	14:15:44 03-17-2003	Tand-110 (IP)	ESC-137 (IP)	jwiner	Completed	Completed Normally.
11	14:15:51 03-17-2003	14:15:56 03-17-2003	Tand-110 (IP)	ESC-137 (IP)	jwiner	Completed	Call failed to Connect.
12	14:16:16 03-17-2003	14:16:18 03-17-2003	Tand-110 (IP)	ESC-137 (IP)	jwiner	Completed	Call failed to Connect.
13	14:16:28 03-17-2003	14:16:33 03-17-2003	Tand-110 (IP)	ESC-137 (IP)	jwiner	Completed	Call failed to Connect.



TSYNERGY IMPACT Video Network Test Center TestID=5

Start Test Clear Duration 00:02:00

Current Server Time: 11:21:51 03-19-2003 Tools Send Mail

Configuration Schedule

IMPACT

- T-Synergy Buffalo
 - Coordination Room
 - Tand-110 (IP)
 - TH-102
- T-Synergy Easttown
 - Test Lab
 - Analyses-2090
 - Analyses-2090_1
 - Analyses-2090_2
 - Analyses-2090_3
 - ESC-134 (IP)
 - ESC-137 (IP)
 - LWG
 - FixTel (ISDN, V35)
 - Polycom

Origination

Call Data

Far End: []
 FE E.164: F323803468
 Far End IP: F92.168.237.137
 Call Type: H.323 (IP)
 Speed: 384 kbps (6-ech)
 Provide Loopback for Far End
 Start Loopback

Identification

Company: T-Synergy System ID: 52
 Serial No: []
 Make & Model: VCON-VIGO

Location

Room: Test Lab Equip Location: T-Synergy Easttown
 Street: Industrial Way East
 State/Prov: NJ
 Postal Code: 07724

Test Origination Device Data

Device Name & ID: Tand-110 (IP) (29) Company: T-Synergy
 Make & Model: Tandberg-1000 Room: Conference Room
 Monitor Point: [] Launch Admin Screen

Test Destination Device Data

Device Name & ID: ESC-137 (IP) (32) Company: T-Synergy
 Make & Model: VCON-VIGO Room: Test Lab
 Monitor Point: [] Launch Admin Screen

Test Information

Owner: jwiner Start: 14:09:10 03-17-2003 Test Type: Interactive
 Test ID: 5 End: 14:09:27 03-17-2003 Status: Completed

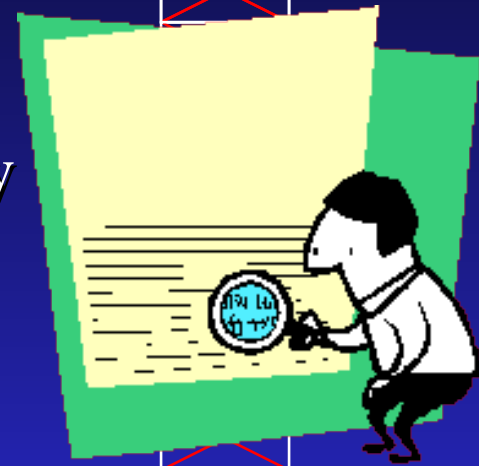
Test Result Detail

Equipment 29 is down.

Stop Test Show Test Console Delete Test

No ~~Spreadsheets~~ **More** ~~Manual Data Entry!~~

- **Select equipment to test.**
- **Test equipment automatically selected and initialized.**
- **Test interactively. Schedule individual or repetitive tests.**
- **Clear English language results —
you don't have to look them up.**



Double-Click any Line for Details!

Test Head 101 Call Trace

- M 11/15/02 13:34:27.906 U -> N Setup
 - Bearer Capability (84 kbps)
 - Channel Id (Ch 22)
 - Called Party Number (Nat'l, 7325427112)
- M 11/15/02 13:34:27.984 U <- N Call Proc
 - Channel Id (Ch 22)
- M 11/15/02 13:34:28.468 U <- N Connect
 - No Details!!!
- M 11/15/02 13:34:28.500 U -> N Connect Ack
 - No Details!!!
- M 11/15/02 13:34:47.468 U -> N Disc
 - Cause Code (Loc: U, Cause: 16, Normal call clearing)
- M 11/15/02 13:34:47.500 U <- N Release
 - No Details!!!
- M 11/15/02 13:34:47.515 U -> N Release
 - No Details!!!

Analyzer-2(90) H.323 Call Trace

Time	Source Address	Destination Address	Packet Data Unit (PDU) Type
03/19/03 11:24:14.906	10.10.100.110.01719	192.168.237.88.01719	RAS_ADMISSION_REQUEST
03/19/03 11:24:14.906	192.168.237.88.01719	10.10.100.110.01719	RAS_ADMISSION_CONFIRM
03/19/03 11:24:14.906	10.10.100.110.05555	192.168.237.137.01720	H225_SETUP
03/19/03 11:24:14.921	192.168.237.137.01720	10.10.100.110.05555	H225_ALERTING
03/19/03 11:24:16.468	192.168.237.137.01720	10.10.100.110.05555	H225_CONNECT
03/19/03 11:24:16.468	192.168.237.137.04434	10.10.100.110.05556	H245_MASTER_SLAVE_DETERM.
03/19/03 11:24:16.468	10.10.100.110.05556	192.168.237.137.04434	H245_MASTER_SLAVE_DETERM_ACK
Source E.164 Alias: 7325427110			
Dest. E.164 Alias: 7323803469			
Source H.323 ID: Not Found			
Dest. H.323 ID: Not Found			
TRACE ****			
Conference ID: 02B221F6860000005634343434EF0000			
message			
age			
4:16.468	192.168.237.137.04434	10.10.100.110.05556	H245_TERMINAL_CAP_SET

Test-Head Data Analyzer Result

Call Reference Value: 85
Call Duration: 19.0 secs
Cause Value: 16
Cause Code: Normal call clearing
Cause Location: U
Side Initiating Disconnect: ISDN Test Head

Loc: U, Cause 16: Normal call clearing

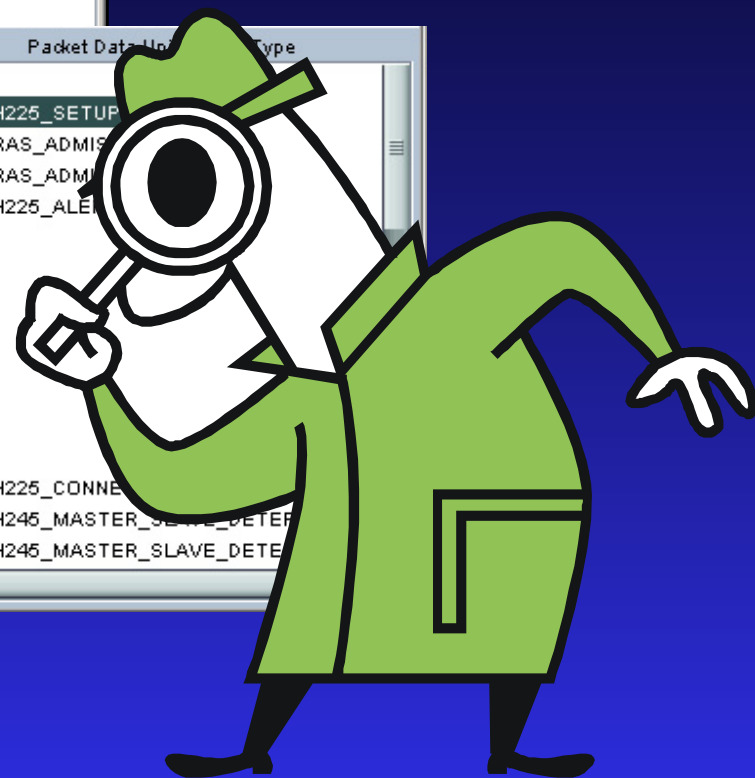
Test results aren't obscure anymore!

TestHead Data Analyzer Result

D-Channel Trace Analyser Messages

Line 3 (of 3) not answering.

Time	Source Address	Destination Address	Packet Data	Type
M All Protocol Messages				
02/12/03 12:35:36.531	192.168.237.112:05555	192.168.237.134:01720	H225_SETUP	
02/12/03 12:35:38.93	192.168.237.134:01719	192.168.237.88:01719	RAS_ADMIS	
02/12/03 12:35:38.93	192.168.237.88:01719	192.168.237.134:01719	RAS_ADMI	
02/12/03 12:35:38.93	192.168.237.134:01720	192.168.237.112:05555	H225_ALE	
Source E.164 Alias : Not Found				
Dest. E.164 Alias : 7323803468				
Source H.323 ID : Tandberg6				
Dest. H.323 ID : Not Found				
**** TRACE ****				
Conference ID : 02B21E1A223719825634343434EF0000				
D Decode Message				
H Hex Message				
02/12/03 12:35:38.93	192.168.237.134:01720	192.168.237.112:05555	H225_CONNE	
02/12/03 12:35:38.93	192.168.237.134:01639	192.168.237.112:05556	H245_MASTER_SLAVE_DETER	
02/12/03 12:35:38.93	192.168.237.112:05556	192.168.237.134:01639	H245_MASTER_SLAVE_DETE	



Real Time Alerts and Email

Real Time Alert Messages

● Real Time Alert Messages

ID	Time	Details
60	12:31:18 03-12-...	land-110-esc137
59	12:22:18 03-12-...	land-110-esc137

Details

Call failed to connect.

Schedule ID:

Send Email

If test failed times in a row

Use ; as separator when typing email addresses

To:

CC:

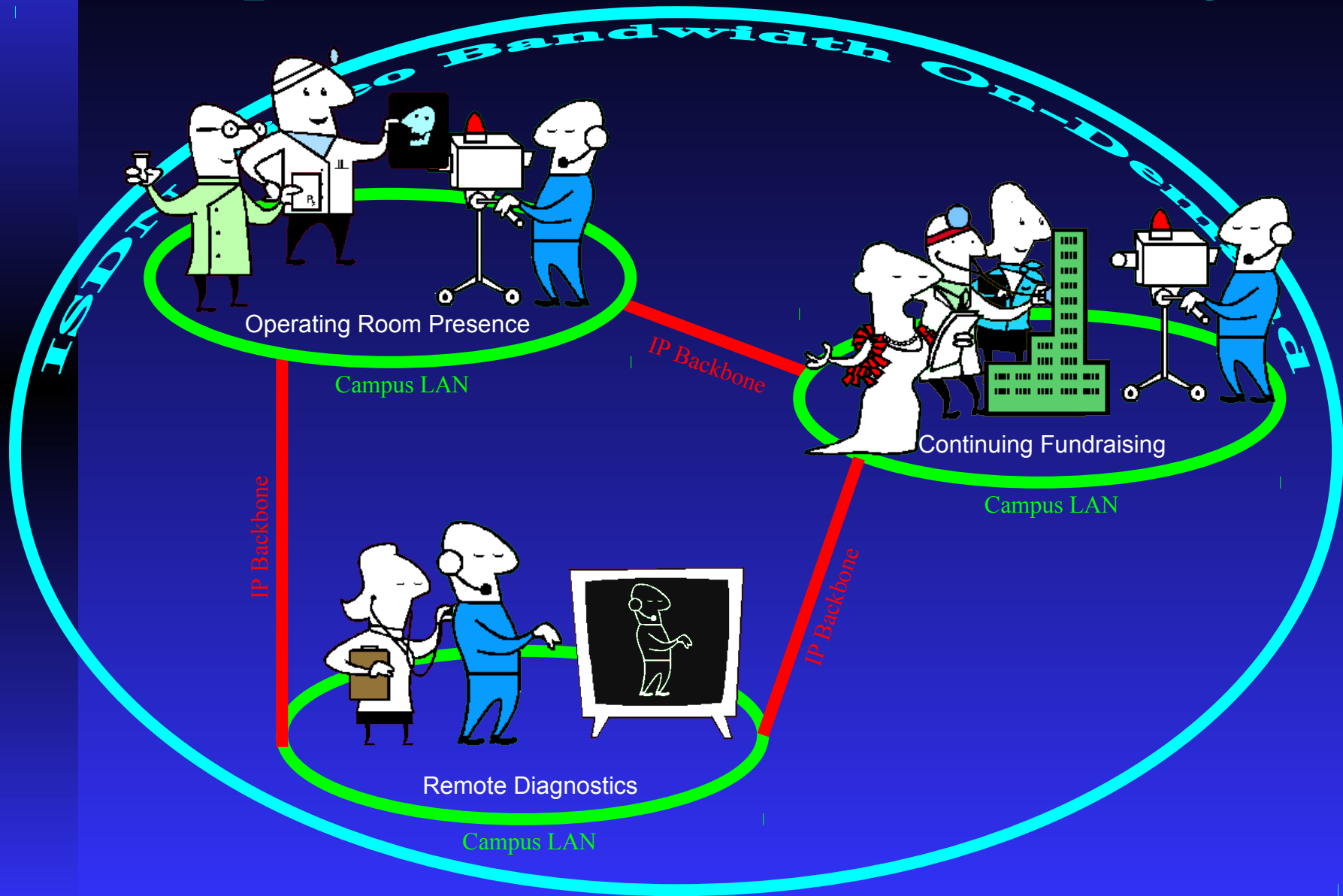
Subject:

Format:

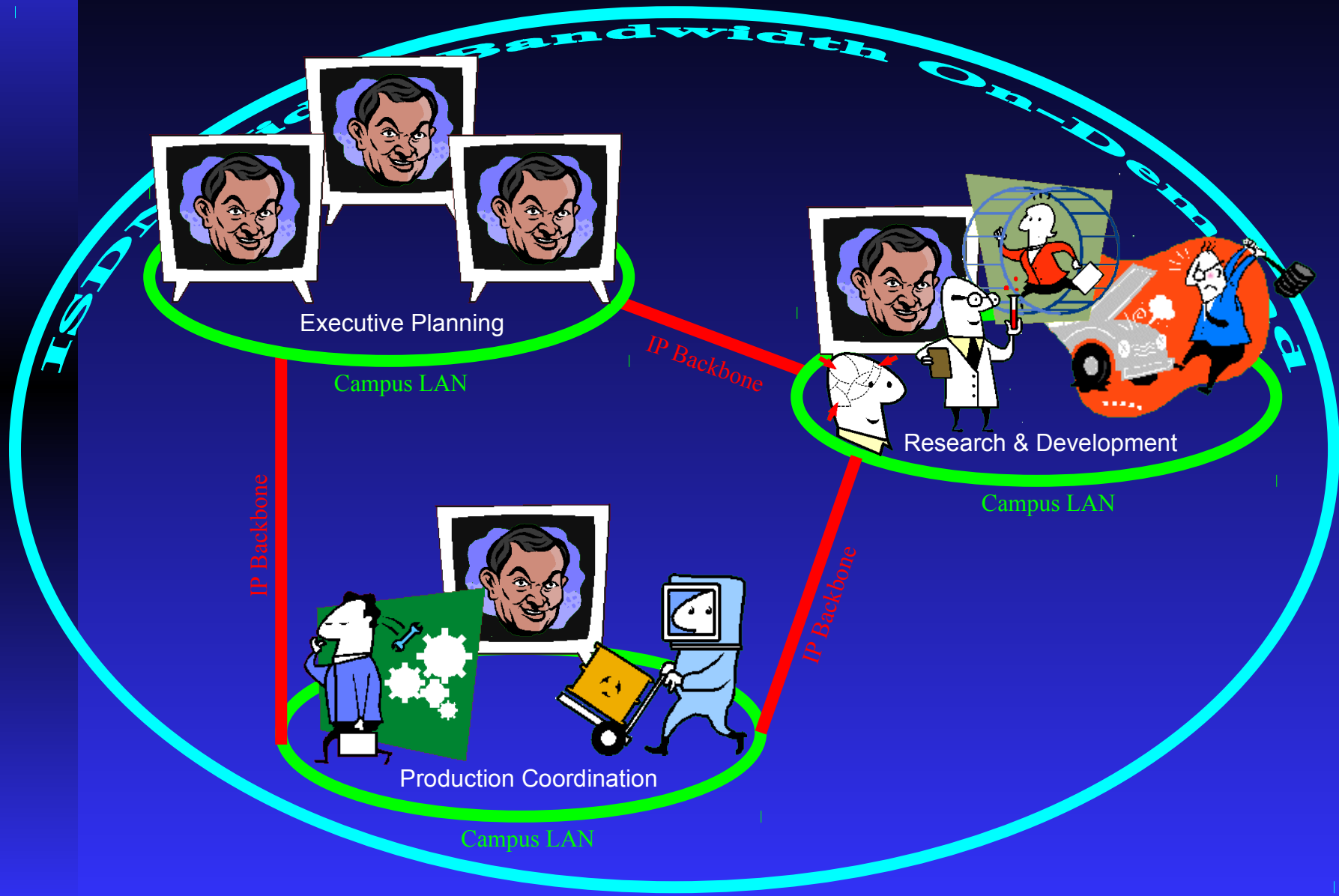
Specify a short warning message



Hospitals / Medicine / Teaching

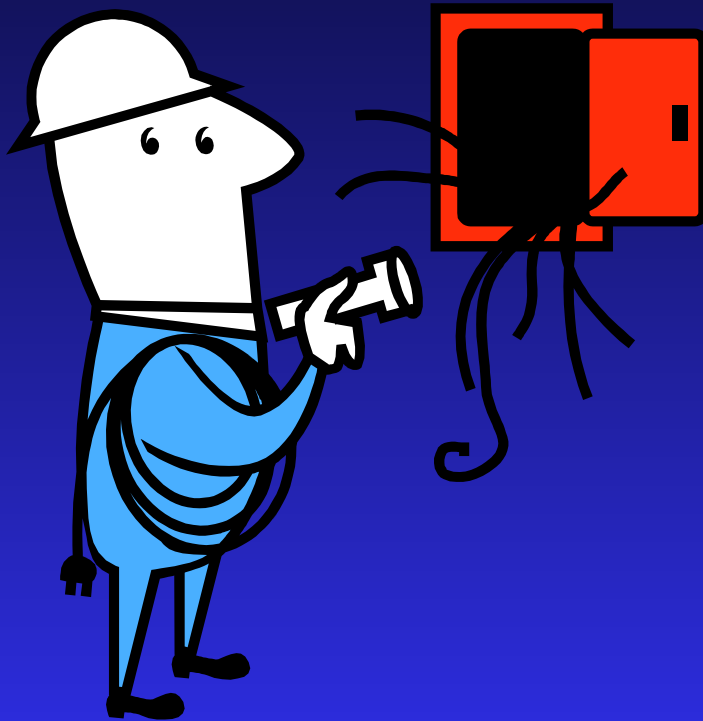


Pharmaceuticals / Automotive



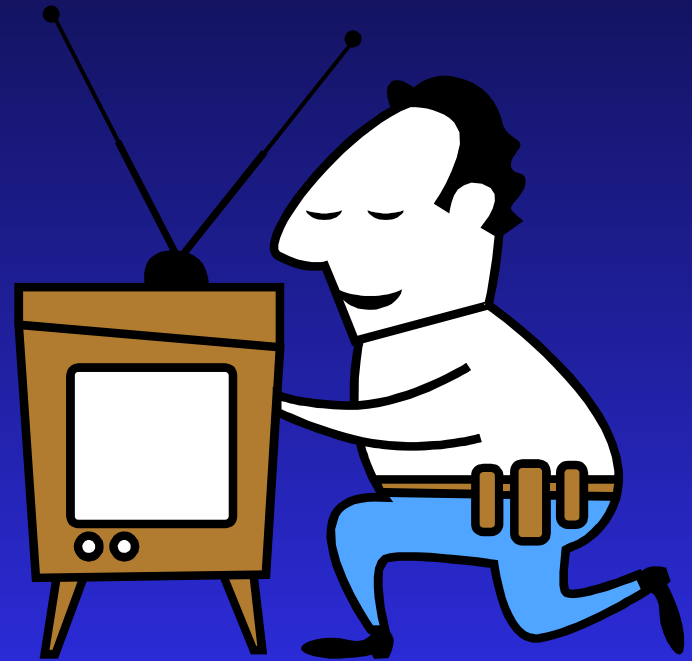
Full Database

Fix it Fast



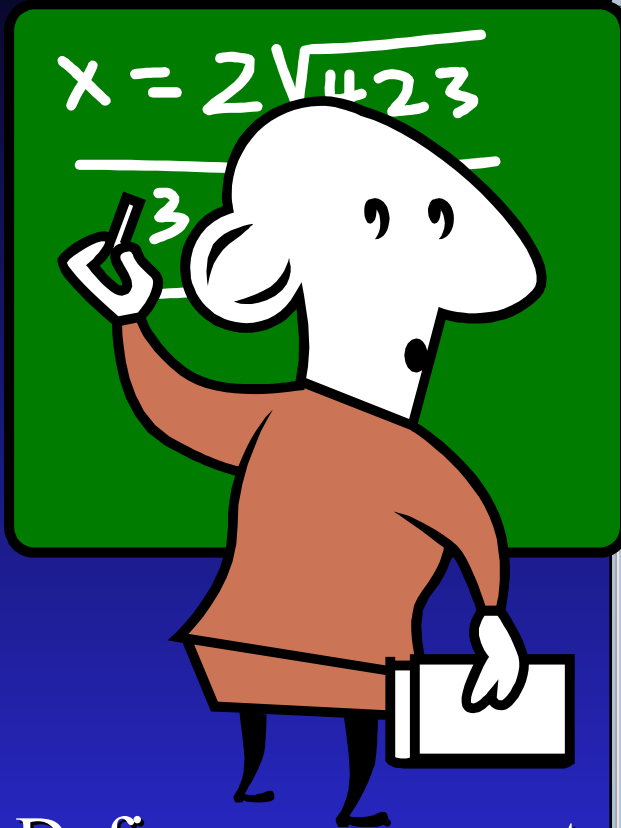
Tell your vendors *exactly*

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



Plan Ahead

Test Plan



- Defines equipment.
- Defines conditions.
- Defines schedule.

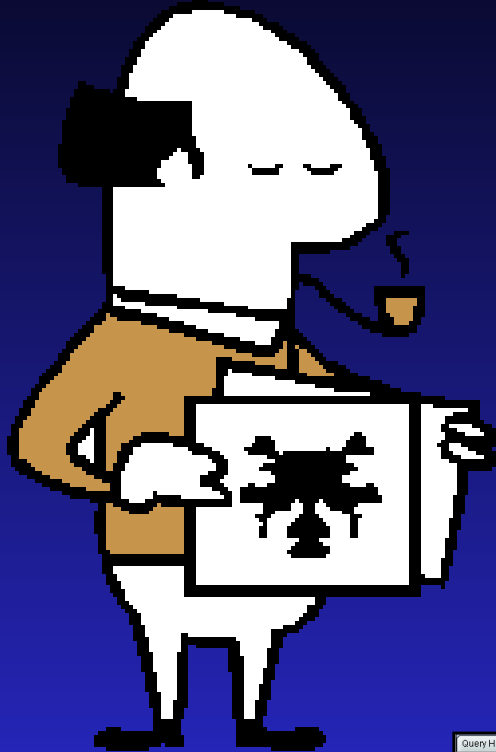
A screenshot of a software interface for configuring test plans. The interface is divided into several sections:
1. **Configuration/Schedule**: A tree view showing a hierarchy of test locations: IMPACT (Company A, NY, Albany, Headquarters, Test Lab, Test Head 102) and T-Synergy (NJ, Eatontown, T-Synergy Eatontown, Server Room, Test Lab, Escort 134, H323 Analyzer, LVG GK+GW, PictureTel-SV).
2. **Frequency/Send Alert**: Radio buttons for scheduling: Once, Hourly, Daily, Weekly, Monthly, Soak.
3. **Call Data**: Fields for Direction (Originate), Type (Bonded 64K), Speed (128(2 Channel)), Far End (Sony - HW Lab), Number (23803465(isdnBRI_0)), Num Type (National), Action (Provide Loopback for Far-end), and Service (OFF).
4. **Origination**: Fields for End-Point (Tandberg-1000), E.164 / ISDN# (7325427110), and H.323 Source IP (10, 10, 100, 110).
5. **Destination**: Fields for End-Point (VCON-VIGO), E164 / ISDN# (7323803469), and H.323 Dest. IP (192, 168, 237, 137).

Scheduling

- Ad-Hoc
- Hourly
- Daily
- Weekly
- Monthly
- Just in time,
before conferences



History of Completed Tests



Test ID	Start Time	End Time	Orig Device Name	Dest Device Name	User	Status	Test Result Detail
38	12:00:20 03-03-2003	12:00:45 03-03-2003	Testhead101	Sony	jwiner	Completed	Normal call clearing
37	11:58:44 03-03-2003	11:59:10 03-03-2003	Testhead101	Sony	jwiner	Completed	Normal call clearing
36	11:46:19 03-03-2003	11:46:19 03-03-2003	Testhead101	Testhead102	linda	Completed	Completed Normally
35	11:41:26 03-03-2003	11:41:42 03-03-2003	Tangberg 110	Testhead101	linda	Completed	Call failed to Connect
34	11:34:17 03-03-2003	11:34:32 03-03-2003	Tangberg 110	Testhead101	linda	Completed	Call failed to Connect
33	11:17:07 03-03-2003	11:18:44 03-03-2003	Tangberg112	VCON137	iswang	Completed	Completed Normally
32	11:14:59 03-03-2003	11:16:40 03-03-2003	Tangberg112	VCON137	iswang	Completed	Completed Normally
31	10:09:27 03-03-2003	10:09:15 03-03-2003	Tangberg112	VCON137	admin	Completed	Completed Normally
30	10:07:27 03-03-2003	10:07:43 03-03-2003	Tangberg112	VCON137	admin	Completed	Call failed to Connect
29	10:03:54 03-03-2003	10:04:10 03-03-2003	Tangberg112	VCON137	admin	Completed	Call failed to Connect
28	10:02:29 03-03-2003	10:02:44 03-03-2003	Tangberg112	VCON137	admin	Completed	Call failed to Connect
27	10:01:45 03-03-2003	10:02:01 03-03-2003	Tangberg112	VCON137	admin	Completed	Call failed to Connect
26	10:01:22 03-03-2003	10:01:39 03-03-2003	Tangberg112	VCON137	admin	Completed	Call failed to Connect
25	9:59:33 03-03-2003	9:59:48 03-03-2003	Tangberg112	VCON137	admin	Completed	Call failed to Connect
24	9:59:12 03-03-2003	9:59:29 03-03-2003	Tangberg112	VCON137	admin	Completed	Call failed to Connect
23	9:58:07 03-03-2003	9:58:23 03-03-2003	Tangberg112	VCON137	admin	Completed	Call failed to Connect
22	9:54:57 03-03-2003	9:55:12 03-03-2003	Tangberg112	VCON137	admin	Completed	Call failed to Connect
21	9:53:22 03-03-2003	9:53:46 03-03-2003	Tangberg112	VCON137	admin	Completed	Call failed to Connect
20	9:51:29 03-03-2003	9:52:22 03-03-2003	Tangberg112	VCON137	admin	Completed	Call failed to Connect
19	9:42:52 03-03-2003	9:43:06 03-03-2003	Tangberg112	VCON134	admin	Completed	Call failed to Connect
18	9:40:08 03-03-2003	9:40:23 03-03-2003	Tangberg112	VCON134	admin	Completed	Call failed to Connect
17	9:38:26 03-03-2003	9:38:41 03-03-2003	Tangberg112	VCON134	admin	Completed	Call failed to Connect
16	9:38:02 03-03-2003	9:38:18 03-03-2003	Tangberg112	VCON137	admin	Completed	Call failed to Connect

Analyze Trends

Multiple filters make data easy to find

Query History for Completed Tests | Query History for Master Schedules

Test History Search Criteria

Start Time: 12 - 10 03 - 02 - 2003
End Time: 12 - 10 03 - 03 - 2003

System ID: []
Schedule ID: []
User: [All]

All Devices
 All Schedule IDs
 Master Sch

Test Type: [All]

Query by Test ID: []

Retrieve Test History [] Search []

Query History for Completed Tests | Query History for Master Schedules

Master Schedule History Search Criteria

Start Time: 12 - 10 03 - 02 - 2003
End Time: 12 - 10 03 - 03 - 2003

System ID: []
Schedule ID: []
User: [All]

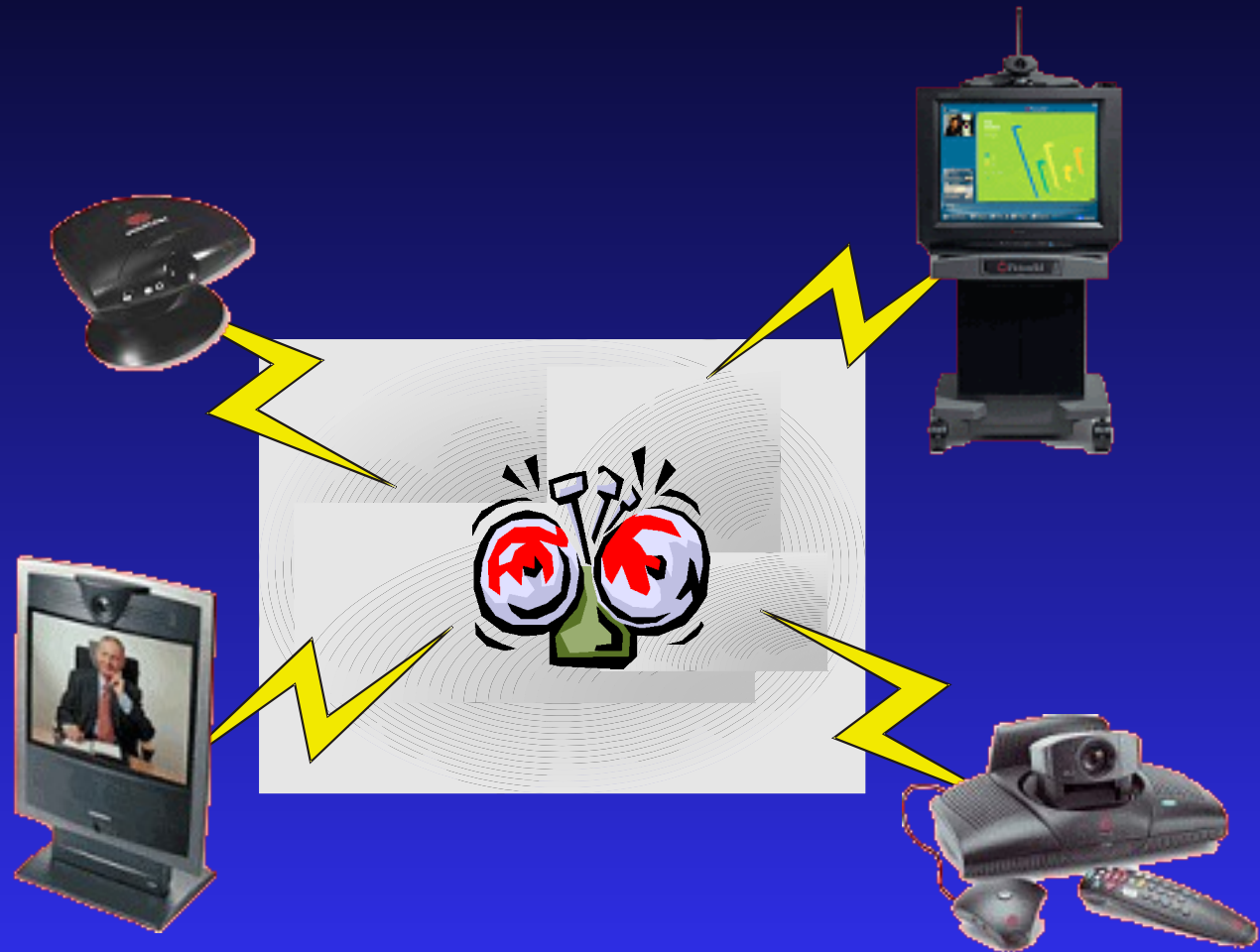
All Devices
 All Schedule IDs
 Master Sch

Schedule State: [All]

Retrieve Schedule History []

Optional Equipment Monitoring

When you don't need the sophisticated, expensive network management systems from the big manufacturers.



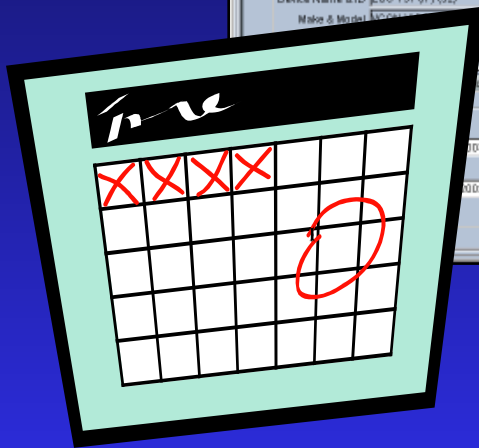
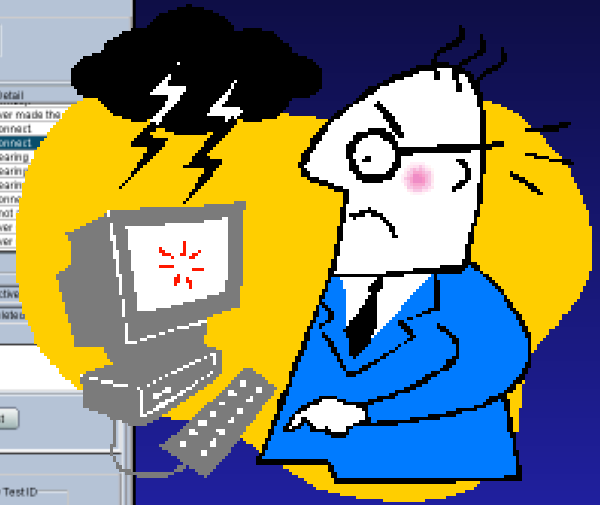
Avoid Problems

Schedule Tests Before Something Goes Wrong!

The screenshot displays the IISYNERGY IMPACT Video Network Management Console. At the top, there are tabs for Status, Alarms, Test, User Preferences, and Admin. Below these is a 'New Test' button and a user selection dropdown set to 'jwiner'. A 'Filter Interactive Test List' button is also present.

TestID	Start Time	End Time	Orig Device Name	Dest Device Name	User	Status	Test Result Detail
34	15:02:55 03-17-2003	15:03:23 03-17-2003	Tand-112 (Both)	Tand-110 (9P)	jwiner	Completed	The origination device never made the
33	15:02:18 03-17-2003	15:02:25 03-17-2003	Tand-110 (9P)	Tand-112 (Both)	jwiner	Completed	Call failed to Connect
32	15:01:15 03-17-2003	15:01:47 03-17-2003	Tand-112 (Both)	EBC-137 (9P)	jwiner	Completed	Call failed to Connect
31	14:55:17 03-17-2003	14:57:05 03-17-2003	TH-102	Sony (8BDN)	jwiner	Completed	Normal call clearing
30	14:54:09 03-17-2003	14:54:35 03-17-2003	TH-102	Sony (8BDN)	jwiner	Completed	Normal call clearing
28	14:37:46 03-17-2003	14:38:45 03-17-2003	TH-102	Sony (8BDN)	jwiner	Completed	Normal call clearing
27	14:35:27 03-17-2003	14:35:42 03-17-2003	Tand-110 (9P)	EBC-137 (9P)	jwiner	Completed	Call failed to Connect
26	14:34:28 03-17-2003	14:34:41 03-17-2003	Tand-110 (9P)	EBC-137 (9P)	jwiner	Completed	The destination device did not
25	14:32:59 03-17-2003	14:33:08 03-17-2003	Tand-112 (Both)	Tand-110 (9P)	jwiner	Completed	The origination device never
24	14:30:52 03-17-2003	14:31:30 03-17-2003	Tand-112 (Both)	Tand-110 (9P)	jwiner	Completed	The origination device never

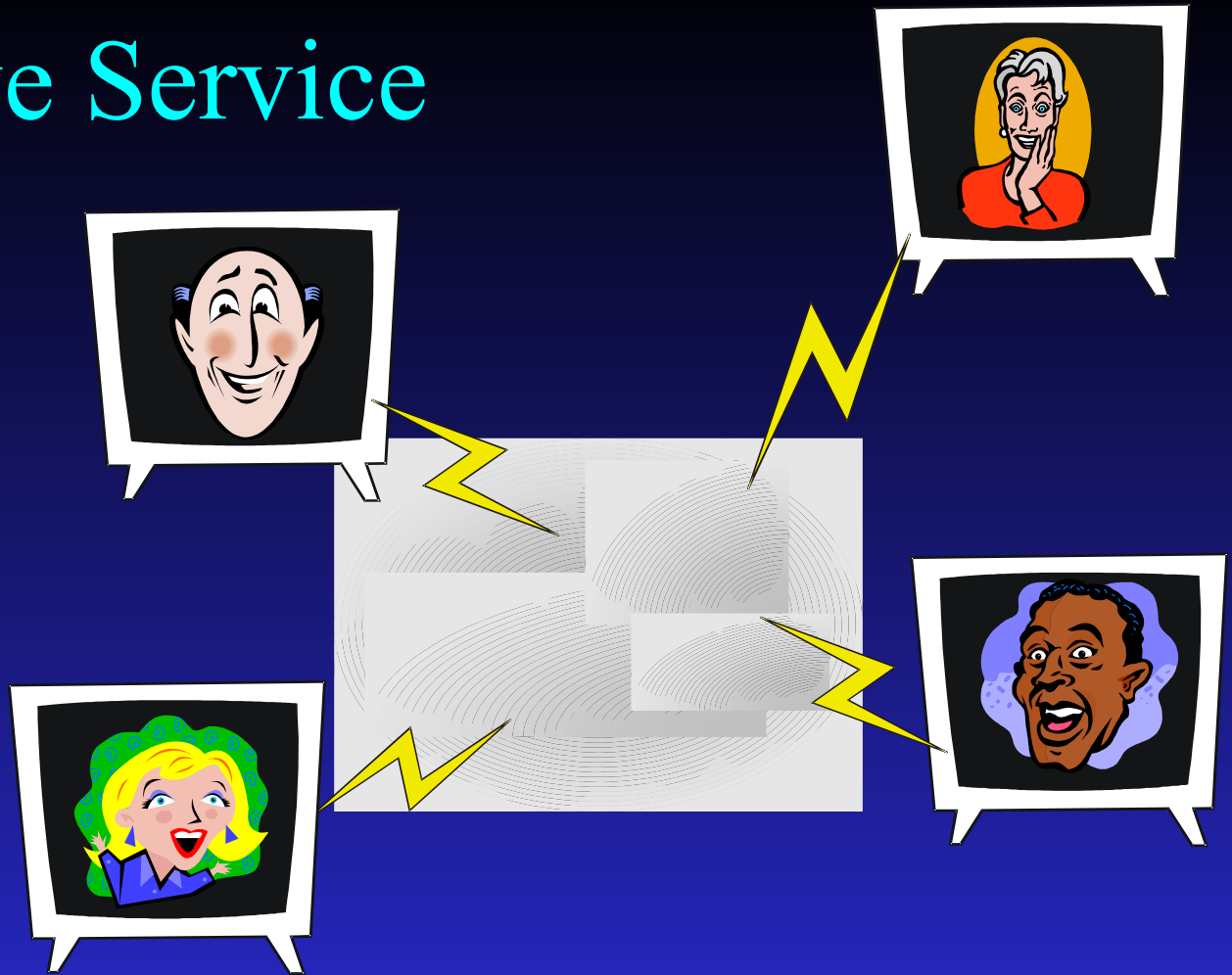
Below the table are sections for 'Test Origination Device Data', 'Test Destination Device Data', and 'Test Information'. The 'Test Information' section shows details for a specific test, including Owner (jwiner), Start (14:09:10 03-17-2003), End (14:09:27 03-17-2003), and Status (Completed).



This panel is titled 'Query History for Completed Tests' and 'Query History for Master Schedules'. It contains search criteria for tests, including Start Time (12:10:03-02-2003), End Time (12:10:03-03-2003), System ID, Schedule ID, User (All), and Test Type (All). There are buttons for 'Retrieve Test History' and 'Search'.

This panel is titled 'Query History for Master Schedules' and 'Query History for Master Schedules'. It contains search criteria for master schedules, including Start Time (12:10:03-02-2003), End Time (12:10:03-03-2003), System ID, Schedule ID, User (All), and Schedule State (All). There is a button for 'Retrieve Schedule History'.

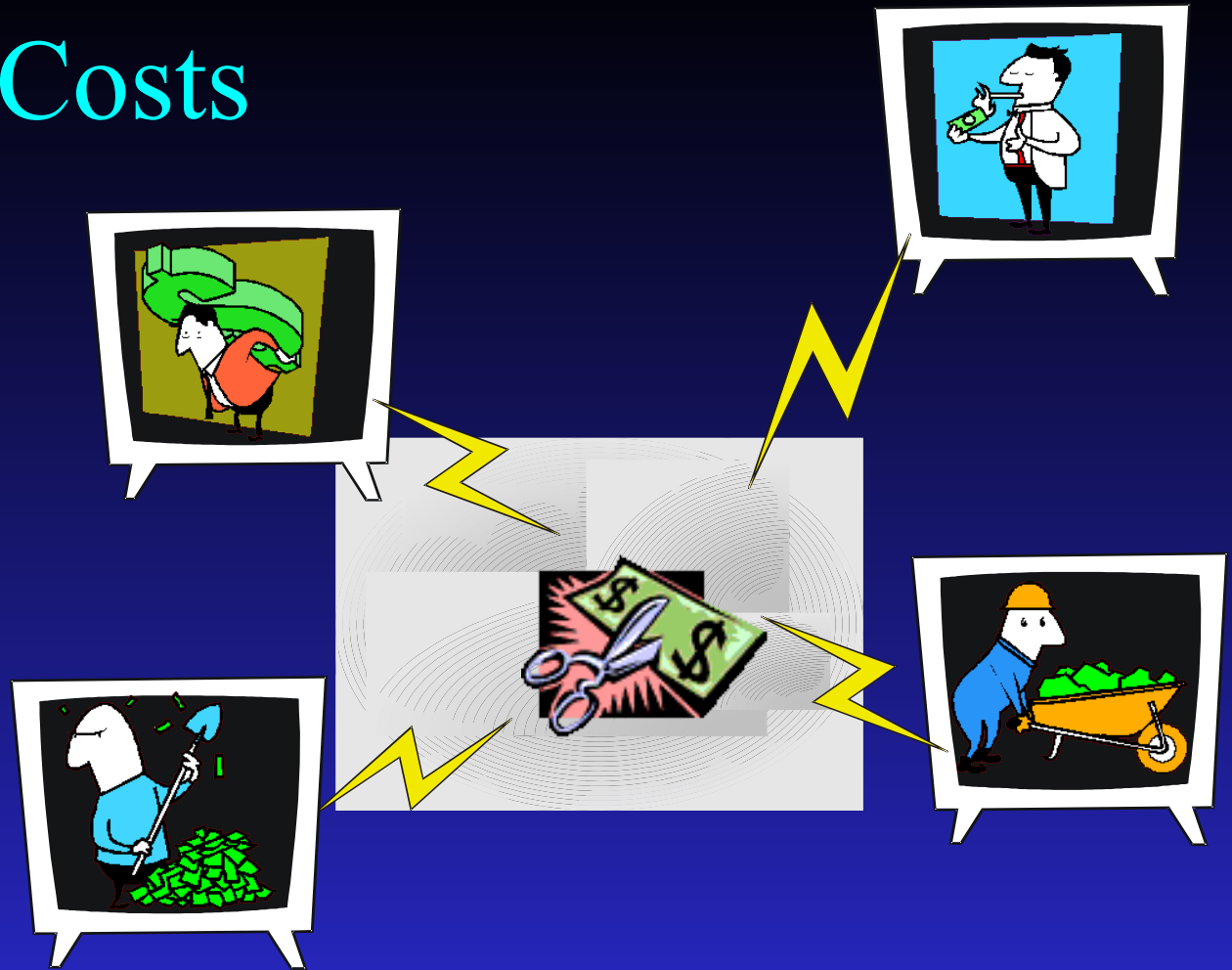
Improve Service



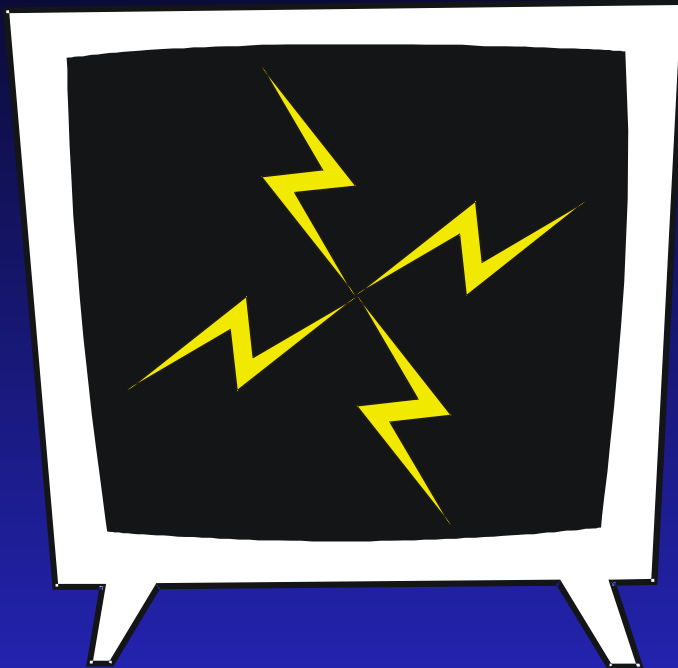
Satisfied Customers
Faster Response

Improved Reliability
Higher Service Quality

Lower Costs



Service Level Agreements
are Practical and Profitable



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