

PLATFORMS S'13 Intern Proj RELAY STATUS

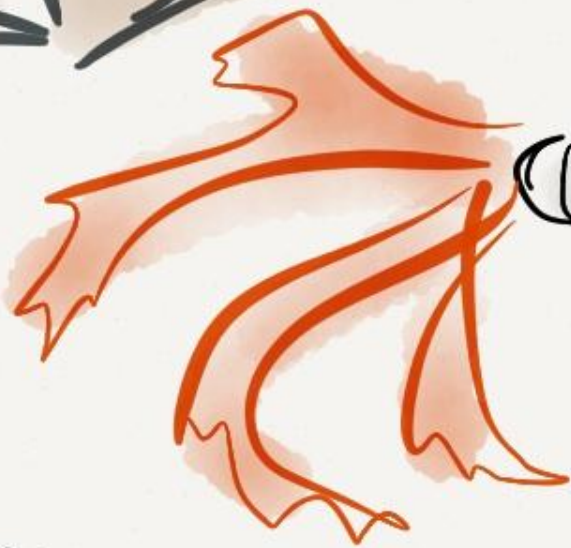
LANSSIE MA

BIGFIX | IBM

Introduction:



ABOUT ME!



FWOOSH!



Cal

C.S.



SUMMER PROJECT

Relay Status
Updates



big Pic

Console

R.S.

R

R

← here

C

C

C

TEAM
PLATFORMS
THE BEST TEAM

The Problem



yis my
relay not
working!
@S*%.

5 hours
later...



TO PUT IT SIMPLY :

SUPPORT can't find
the problems with
relays in an easy,
consolidated way.



OUR SOLUTION

SUPPORT NEEDS:

Relay Status

Gather failures

Settings

DNS failures

CURRENTLY HANDLED

→ Family line



- all site URLs
- site version

UPDATED every x
seconds

DELIVERABLES

Relay
Status
Results

- objects
- map of map
- plugins

ROOT
SERVER
New
TABLE

- Computer ID
- Site URL
- Site version

REST
API

- queries for relay statuses
- returns XML of broken relays

TIMELINE

currently

RelayStatusMap Class

```
typedef std::map<std::string, uint32> SiteVersions;  
typedef std::map<compID, SiteVersions> StatusMap;
```

- StatusMap:

"5175626" : "all sites and their current versions"

- SiteVersion Map:

"http:\\BobsBurgers:523\\cgi-bin\\bfgather.exe\\actionsite" : "19"

IncomingRelayStatusPlugin

- handles incoming RelayStatusMap from it's child Relays
- calls **InsertChildStatus()**: adds Child's RSM to it's own

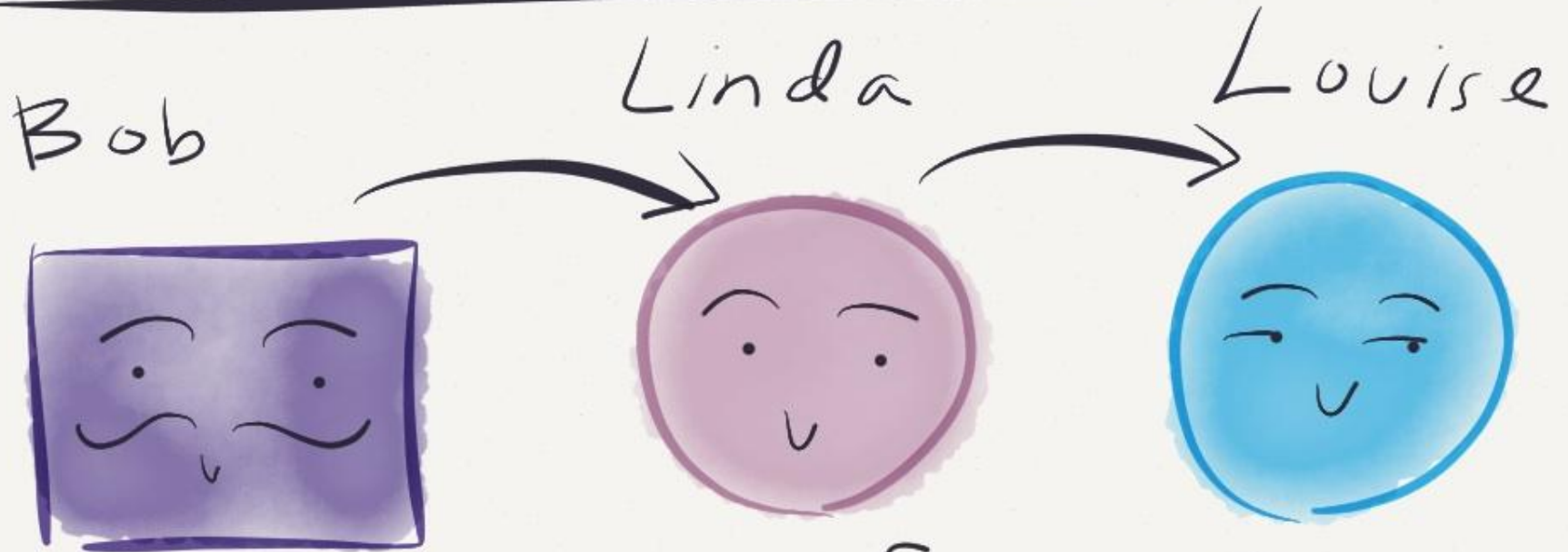
SendOutgoingRSM

- calls **InsertSelfStatus()**: adds all "site:versions" + CompID to it's RSM
- sends RSM to parent Relay/Server.

StoreRSM

- stores RSM information into Server Database
- CompID, SiteURL, SiteVersion

Meet the Crew:



he's a
Root Server

They're Relays



Starting From the
leaf Relay

I have no children!
I'll update my own relayStatusMap!
And I'll send it to Linda!

1

R

No Child Relays!

2

RSM

← add self.

"1 : {action: 2}"

Send this RSM to parent

3

"1 : {action: 2}"

Starting From the leaf Relay



RSM

I have no children!
I'll update my own relayStatusMap!
And I'll send it to Linda!

I'll use my plugin to update my RSM!



Then I'll add myself into it and send it to Bob!

1 : {action : 2}

Received this
from child!
into my own!

R

1

INSERT

1 : {action : 2}

2

UPDATE + SEND self!

1 : {action : 2}

2 : {action : 2}

Starting From the leaf Relay



RSM

I have no children!
I'll update my own relay StatusMap!
And I'll send it to Linda!

I'll use my plugin to update my RSM!



Then I'll add myself into it and send it to Bob!

RSM
+
RSM



I'm the root server!
I'll take this RSM and
store all site URL's + site versions in
my database for each computer ID!

RS

1 : {action: 2}

2 : {action: 2}

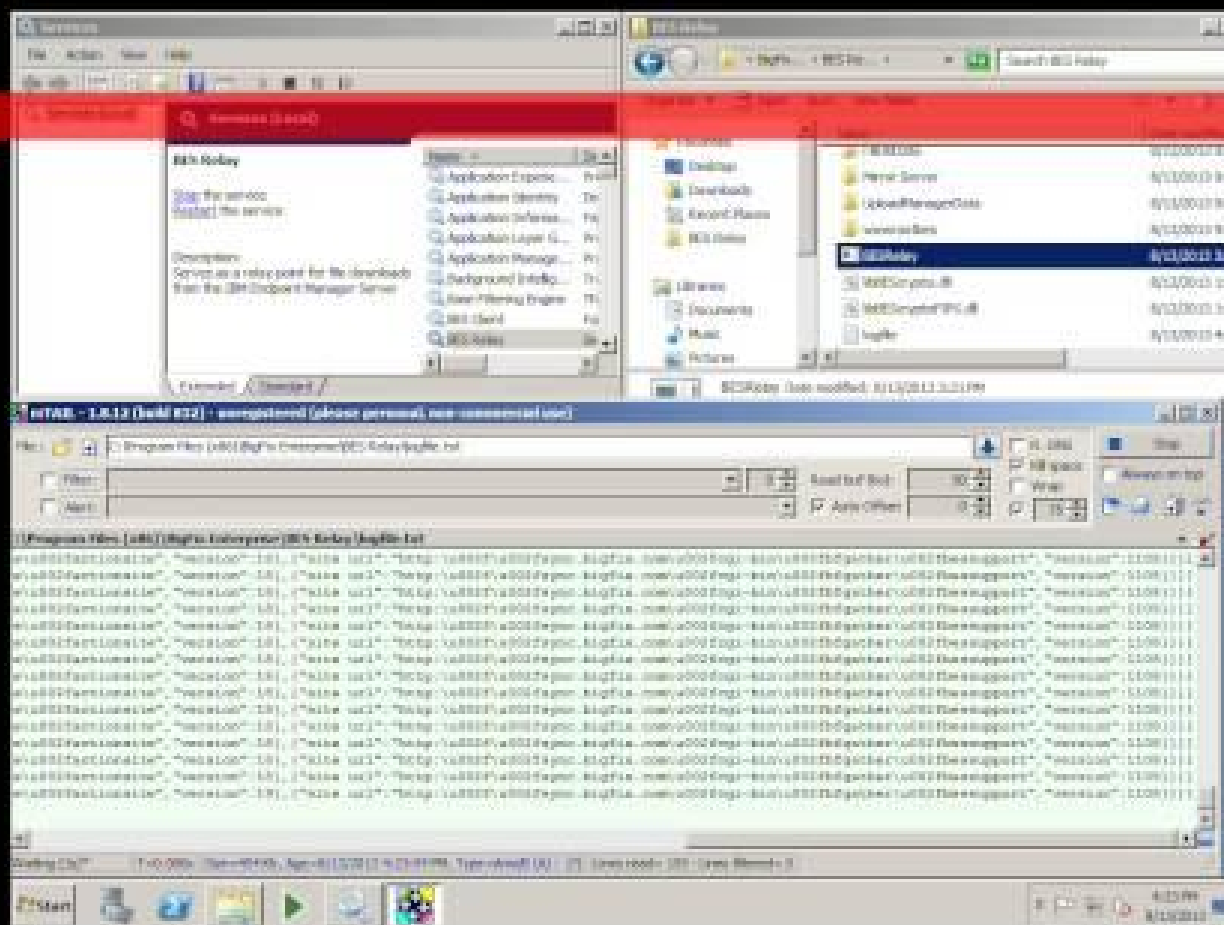
1

received this but I'm the RS
update self with this + STORE

In the
Database

comp ID	site URL	version
<u>1</u>	action	2
2	action	2

DEMO



FRONT END DELIVERABLES

DASHBOARD API

- allow support & users to check current relay statuses in real time.

The screenshot shows the IBM Endpoint Manager console interface. The left sidebar contains navigation links: Policies and Tasks (704), Assets (5), Systems (133), Actions (15), Dashboards, Wizards, Custom Content, Custom Views, Custom Reports (7), Computer Groups (6), Unmanaged Assets (5), Operations (1), Items (3), U2F Devices (3), Groups (7), AB Content, and RegEx Management. The main area displays the 'Analysis' section. A table lists various analyses, with 'Activated Globally' highlighted in blue. The table columns are Status, Name, Size, Application Component, Activated By, and Date Activated. Below the table, there are buttons for 'Activate', 'Deactivate', 'Export', 'Info Locally', and 'Info Globally'. A description box at the bottom states: 'This analysis contains information about the different BES component versions. This information is particularly useful after performing BES upgrades.'

Status	Name	Size	Application Component	Activated By	Date Activated
Not Activated	BES Component Versions	BES Support	4		
Activated Globally	BES Policy Status	BES Support	4	logix	8/14/2012 11:08:58 AM
Not Activated	BES Management Rights	BES Support	4		
Not Activated	Bandwidth Throttling Status	BES Support	4		
Not Activated	BES Policy Cipher Information	BES Support	3		
Not Activated	BES Client Logging Service Version &	BES Support	3		
Not Activated	BES Client Service Version	BES Support	1		
Not Activated	BES Client Service Version	BES Support	1		
Not Activated	BES Client Service Version	BES Support	1		
Not Activated	Monitoring Windows Registry	BES Support	3		

Activated BES Component Versions

Activate Deactivate Export Info Locally Info Globally

Description: Details | Application Component (4)

Description

This analysis contains information about the different BES component versions. This information is particularly useful after performing BES upgrades.

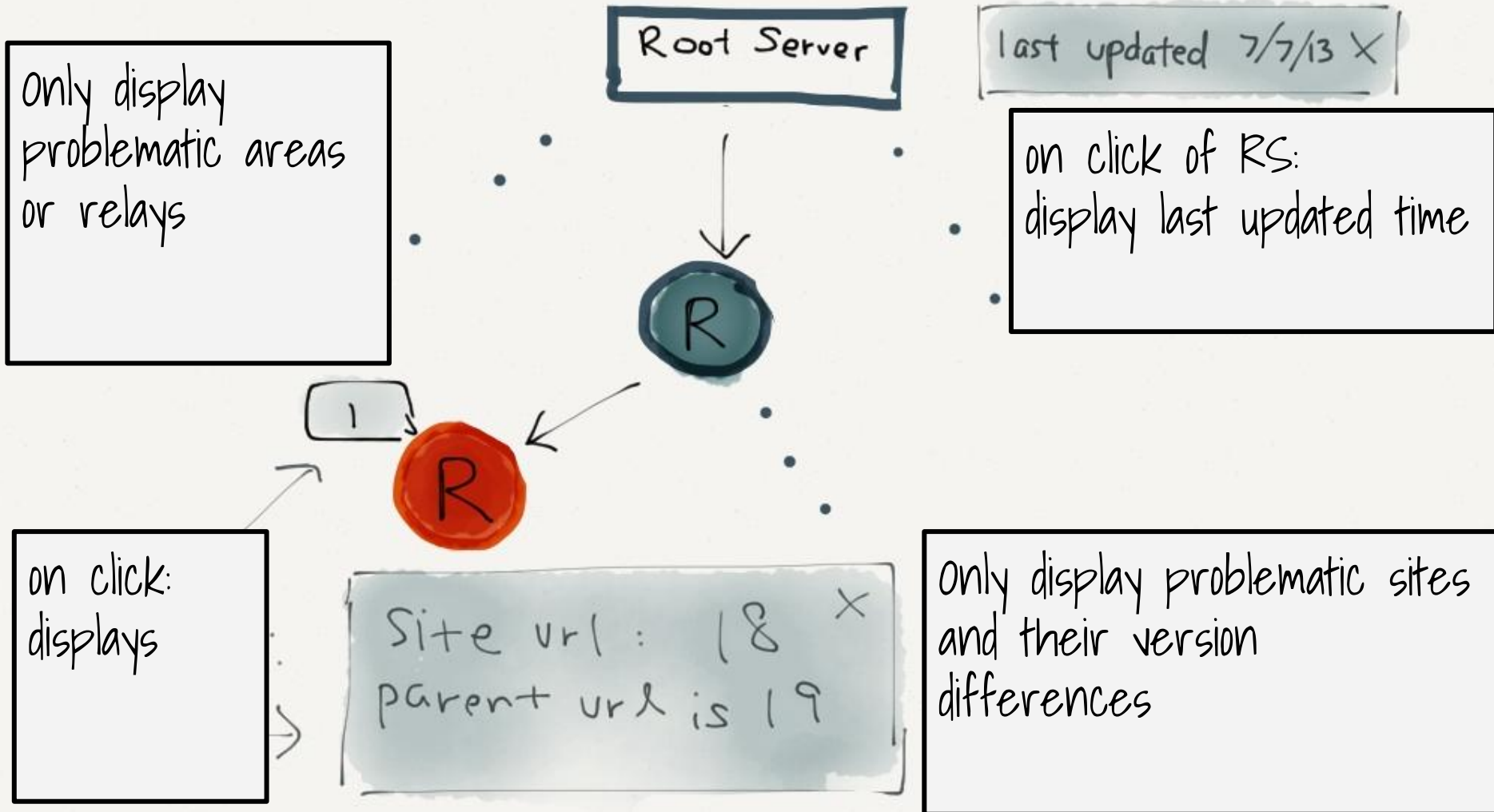
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12 items in list, 1 selected. Connected to Endpoint Manager as user logix

100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0%

https://bobsburgers:52311/api/relay-status

Relay Diagnostic



Challenges



What I've Learned

Better

coding practices and techniques

TONS

of different tools

Visual Studios, Perforce, VM, SQL, C++

BACKEND development



My Summer Experience





Prizefighters





Thank you!

Questions?