5/18

Weekly call with John

Client Health Check - they have a script they run to see if everything’s ok

They are only running PUppet on a system when they run a deployment, not running the agent on a regular interval. Going to be difficult to know about “agent health” and if an agent can’t communicate with the master becaues of networking issue rather than not being targeted on a deployment

Upgrade topic came up today - can do this over 4-5 day window with less team members involved because no code changes required. Still planning on upgrading to 2016.4.2

5/16

Patrick, Russell, Bill Ward, Sean, John, Matthew, Chris, Jim, Noel, Reid

Sean - manager

John - project lead

Patrick Mayes - engineer

Chris Barbur - engineer

Jim - support

Allen Anderson - Tech writer, social media, manager, talk to customers and streamline support

Russell - engineer - broker code, allows them to interact with ServiceNow / Puppet

Matthew madey - engineer

Ravi - support

Talking about Puppet within the terms of how they’re using it. Jenkins modules that make calls to different aspects to do whatever.

How do we switch to code manager? What are the differences in operations / limitations? They only send the module to be updated, not the whole deployment. Tagging with either commit ID or v1\_1. Use Puppetfile to list all modules. When they do a deployment, the only thing that should be deployed is the one module.Automation that surgically alters the Puppetfile.

Running into issues with r10k. It doesn’t like being run in parallel. When they make changes, sometimes they have to queue up changes.

What are you deploying today? Updating 2 things - control repo with roles, profiles, hiera data. All nodes associated with that enviro - and module deploy that just deploys that 1 module. End result - at any given time, all modules in any given environment should match what’s listed in Puppetfile.

CA moms have separate code base / environments on CA than on the compile masters. CA MoMs have 7 modules vs thousands of modules on the compile masters.

Ease of setup - is this going to take weeks to setup?

4/27

Elizabeth, Erica, John, Dan

1. Discuss open support tickets
   1. Testing git commits is miserable. Nothing jumps out. As they add all these packages in a commit, there’s a slew of duplicate declarations they have to fix.
   2. Next step is removing packages
   3. Sad part is they have a canadian store, after that they become a blocker for them.
2. Check in on upgrade
   1. No discussions on upgrade / code manager and file sync. More heavily into converting people from opsware.
3. Puppet Training
4. Questionnaires on vulnerability scanning and discovery
   1. A lot of that seemed maybe things that John’s not allowed to answer
5. Any other questions or concerns
   1. Now looking at Service Level Obligations - we need to say we’ll have Puppet available 99.999% of the time. There are many things that implement a deployment - if github is down that impacts deployments.
   2. One we get everyone moved out of opsware, we can start looking at what are you doing in your packages.
   3. Sean is buffering the conversion deadline from John and team. Expect current workflow to be wrapped up end of May. Mid - end of may everybody’s doing POS conversion from opsware.

4/21

Elizabeth, Erica, John

1. Discuss open support tickets
   1. Still working through challenge with 24952 - ran into duplicate declaration changes. Went back to last known good compile, and 112 commits behind current. That’s around the time they started adding hundreds of packages. Stuck at a point where they’re looking through canadian isp yaml file
   2. There were blocks of days of running Puppet and fixing (package name was wrong, duplicate declaration, missing rpm in spacewalk)
2. Check in on upgrade
   1. No movement on upgrade - don’t see them working on upgrade for a month
   2. Internal meeting to discuss code manager and file sync. -
3. Questionnaires on vulnerability scanning and discovery
4. Any other questions or concerns
   1. P

4/13

John, Erica,

1. Discuss open support tickets
   1. Big problem is ability to build based on open ticket. Last note a mention of memory issue that’s spiraling down and dying. They have a CMDB with a list of all store servers, each store has 7 individual facts that they create. Resulted in 32,000 lines of facter output, trimmed it down, brought it down to 3,000 lines.
      1. John is building 3 different stores - 1 US, 1 Canadian, both originally built with Puppet back in Jan with much smaller set of packages. They ran Puppet again with updated set of files. US ran ok, Canadian did not. Canadian ISP (primary app server) isn’t building. The builds worked back in January. Reset git, go back commit by commit to find the one that breaks.
      2. Right now John doesn’t need anything from us. He thinks they’ve hit a resource limit. Looking at the packages, none of them look out of the ordinary. Can’t have 1100 rpms stacked up inside. Feels like I’m hitting a limit on the number of packages they’re managing. The packages are in a spacewalk repository
      3. Managing roughly same number of rpms in US store and not running into any issues.
2. Check in on upgrade
   1. Still on hold
3. Any other questions or concerns
   1. Going to spin up internal conversation internally to start adopting Code Manager + File Sync - yay!

4/6

1. Discuss open support tickets
   1. A couple new stores coming on in the next month or so.
   2. Bump in mcollective in nonprod, Dwight made adjustments to remove MoMs from that list
2. QBR Review
   1. John - somebody asked why Puppet isn’t managing AIX. They have 1 AIX server pointing at their environment in QA - AIX 7.1
3. Check in on upgrade
   1. Still in the same spot, putting out fires, so close to the end of migrating out of opsware. You have big messes at the very end to clean up. Saved most complicated one for the end (POS). Finished all validations in NP, it’s about finding the time to upgrade NP. HE doesn’t want to upgread NP, then wait a long time to go to Prod. They’ll get back into agile process once the conversion is done.
4. Discovery tools
   1. Are you using any of the following: BMC Discovery, HP UCMDB, IBM TADDM, and ServiceNow Service Watch - using Service Watch
5. Vulnerability Scanning - willing to talk to Product / UX?
   1. Questionnaire would be great.
6. Any other questions or concerns

3/30 - NO SHOW

1. Discuss open support tickets
2. QBR Review
3. Check in on upgrade
4. Discovery tools
   1. Are you using any of the following: BMC Discovery, HP UCMDB, IBM TADDM, and ServiceNow Service Watch
5. Vulnerability Scanning - willing to talk to Product / UX?
6. Any other questions or concerns

3/9

1. Discuss open support tickets
   1. Check in on MCO ticket
2. QBR - schedule in March
   1. 3/21 - 11-2 - focus on Windows stuff, Accomplishments, where are we and when are we when we have ad hoc tasks in Puppet - switching to Code Manager PS engagement.
3. Check in on upgrade
   1. Conversion is still top priority, last week they converted 2 over and added 3 new.
4. Any other questions or concerns
   1. Wireframe - russell, bill ward, Kel, John, Sean

3/2

1. Discuss open support tickets
   1. Timezones for datacenters
2. QBR - schedule in March
3. Check in on upgrade
   1. Has been put on the backburner - moving out of opsware is top priority - they’ve got about 2 weeks of work left once they start again
4. Puppet Job wireframe feedback with UX
   1. John, Sean, Bill, Russell, Dwight, Andrew - E to email Sean to see who he’d like to have on the call
5. Any other questions or concerns
   1. Have done first few stores, team found things they forgot or didn’t know they needed to do for new store builds. Not building as many stores as they used to. From a deployment status they’re done, but from a new store perspective.
   2. Architectural review is a a good idea once the dust has settled.

Feb 23

Meeting with Sean

1. Don’t do something so stupid that I can’t upgrade later

2. Don’t do something that I can’t fix later

3.

One of our best partners has been ESVS (special services) and Com (doesn’t stand for Communications) we marked them as done a month ago, they do a new release of their product every 2 weeks, they’ve done 4 of them. They showed up a week ago and said we have more appications you need to convert for us. At about 40 individuals, 60 applications left to move. ONe of the big things they’re struggling with is their POS team. IT’s at the point where Sean wants to get the other 44 done and then focus on PLS.

How can we help? MOdules are super simple, spend most of their time helping with Ant code, jenkins code

Sean’s plate has expanded so much that now Puppet is only a small portion of it. When we first started the discussion, Sean had the Linux deployment stack - now he has mac config mgmt, Windows deployment mgmt and SCCM. Will probably move windows server stuff to Puppet. One of the lead Windows engineers approached Sean last year and wants to use Puppet.

Next big thing after conversion to Puppet from Opsware is code refactor.

Using airwatch and intune for Windows desktop and scanners in stores and warehouses. Jamf (casper) for MacOS - interns had a great experience using the tool

Already showing cost savings - since November, they have done 2million unique changes with Puppet. Deploying to the stores, got one of their major applications

Operational tasks - changed linux workflow priority for the next year.

Feb 2

1. Check in on upgrade
   1. Got through one of the 3 QA tests. Going to be making more movement, just got built by new store builds, lost a little bit of time. ONce we promote upgrade in non-prod environment there shouldn’t be surprises and should go quickly.
2. Next week’s meeting
3. Technical Advisory Board
4. QBR
5. DevOps Survey
6. Any other questions or concerns
   1. Still plugging away at getting people moved over. Have new physical stores they’re going to open up this year that they have built for the first time using Puppet.
   2. Sean has more details on what’s next. Looking at automation, have some things we need to clean up. Coming back to some other teams, point of sale people that have ideas for things they want to do with Puppet.
      1. What they’re doing is very different than how other teams are managing their applications. They are being sticklers about what they want. They have a bunch of rpms that they tar up into one rpm and that’s how it gets delivered
   3. Really close to moving out of firefighting mode.

Jan 26

Here is the agenda I have for the meeting:

1. Check in on upgrade
   1. 99% focused on transitioning, but some movement on upgrade. 3 more test builds in QA before they can say they’re good
2. QBR
3. Any other questions or concerns
   1. Very busy with lots of people trying to move into puppet
   2. Down to 80 different people with multiple jobs they’re doing in ops ware, mostly lower lifecycle. A couple groups finishing deployments, but waiting until deployment is done. It’s nothing hard, other than they’re stragglers.
   3. Handful of stores where broker wouldn’t send the change. Logged on and everything worked as expected, don’t think that’s a puppet or mcollective things.
   4. Once this piece is over, what’s the config management

Jan 12

Here is the agenda I have for the meeting:

1. Puppet Camp Atlanta
2. Check in on upgrade
3. QBR
   1. Middle of Feb? Down to 40 people they have to move, people are coming out of the woodwork saying they didn’t know opswork was going away. Shut down from opsware point of view end of Jan
   2. QBR needs to be focused on where Puppet is going now, how many versions are they going to go through
      1. How can they add Windows servers
      2. THD internal user group, interested when they’re a little bit more mature. Most of what they’re doing is the rest of the CD pipeline, jenkins and git. Actual Puppet module, not so much. As they mature in that space, Operations team meeting, sean said you take owner ship of what run version the system should be, you write PUppet code for what that looks like.
      3. How to get development teams to write PUppet code. At the end of the team they have dozens of different teams who are writing Puppet modules that end up at the same device. They’re reticent to turn them loose to write whatever Puppet modules they want.
      4. SEan and John both share same node, SEan has unix stack, John has 1 of 10 app stacks, E has security - base OS, enterprise security pieces, then each application stack
4. Any other questions or concerns
   1. Onboarding customers, training offshore people
   2. Good news is they were having a failure rate of PUppet runs < 2%, 1.4% Out of 500 stores, only 5 or 6 failed - most failures are not Puppet related.
   3. Looking at all of their stuff, and from Nov 1 through Dec 30, They did 6,500 unique changes with Puppet. Most in QA environment. If you look at change / puppet team member, that means each person is responsible for about 460 changes per person in that period
   4. Last week they made about 1000 changes. That’s changes, not hitting devices. Multiply endpoint times number of changes.
   5. Challenge right now is handful of Puppet things that aren’t crippling. Biggest thing they're facing is moving into operational space - team is having to play developer, business analyst and support. Doing somewhere between 60-100 service tickets a week supporting PUppet. Most is not PUppet, it’s things like “version 5 ended up on the server, but I wanted version 6” Still have issue with duplicate declarations. Have not implemented onceover gem to do that.
      1. Part of the challenge is making sure it gets into right part of every application. There was some reason why they couldn’t just put this everywhere
   6. Operations - Sean’s team is engineers, should be refactoring code, take Puppet foundation they’ve laid down and moving it to the next level. Instead they are servicing tickets, training new teams, etc. In the operational space, spending a lot of time reinventing the wheel. Engineers hate writing things down.

Jan 5

John,

Here is the agenda I have for the meeting:

1. Check on Puppet deployments
   1. Nothing out of the ordinary
2. Check in on upgrade
   1. Slow and painful. Because they want to test all of their builds, identified bugs in build process unrelated to Puppet that causes them to stop doing their builds. Going to manually build servers, point them to QA Puppet, then point them to Puppet.
   2. Dev and QA are upgraded to 2016.4, doing validation tests in QA.
   3. Once that’s done, move into NP and Prod this month.
3. QBR
4. Any other questions or concerns
   1. A change went in overnight, and there were problems with it. Couldn’t get compile servers with r10k to update correctly. If they delete tag and re-add tag it won’t update files correctly.
   2. Until they have something where r10k dies and their screwed, priority won’t get moved up much.
   3. Biggest challenge is users haven’t met standards with rpm and yum in the past, and now Puppet is enforcing that and causing pain.

12/15

John

Ticket [23075](https://puppetlabs.zendesk.com/agent/tickets/23075) - Dev is done, QA is next.

Tonight is the big deployment - one of the big 4 customers is going tonight. They’re confident the Puppet environment will work well, issues that may arise are application related. 500mg rpm, trying to get that application team to trim it down.

Things are going well. John is out on vacation the next 2 weeks. Patrick will be standing in for John for anything Puppet related.

By Jan, everybody should be on 2016.4.2. They’re trying to get agents upgraded, non-puppet related challenges, mostly disk space.

12/8

John, Sean

Upgrading dev to 2016.4, going to QA next week, going to NP Christmas, New Years, then going to prod in Jan.

1. User => maestro questions
   1. John to switch code back to using su for now, Elizabeth to follow up internally to see why passing the user via the user attribute doesn’t have the same result.
2. Check on Puppet deployments - are stores migrated over?
   1. No real activity, some slowness as they move forward to stores. All the effort was to work out the kinks they already had. Identify changes they needed to make.
   2. Were going to have giant deployment last week, day before deployment go / no go with customer, there were challenges there, decided not to go. Wound up doing Puppet run for grid stuff, grid server had load average of a billion. More meetings tomorrow with same store group to get past issues they ran into before they go live. Shooting for target date of 12/16. 12/16 is the pilot, then it’ll go everywhere else. Christmas freeze starts 12/19
   3. Almost everything they ran into had nothing to do with Puppet, it was other issues they had to work through.
   4. Still deployed tool rental and a couple ES VS, COM, and POS - those are the big ones. They were going to deploy ES VS and COM, on the 16th they’re shooting to deploy ES VS and COM. Talking to POS guys, turning out to be harder than they thought for non-puppet reasons.
   5. ESVS and COM does 1 store, then jumps to 100, 300, 500, 1900 stores a night. Testing we did made Sean confident that they can handle these deployments.
   6. For the stores that didn’t go, it seems to have been possibly puppet, maybe a network thing, if you did a re-run of Puppet, it was fine. We adjusted 4 different timeouts, what we saw was that it looked like timeout behavior. But 3/1600 was not enough to go in and further tune the timeouts.
3. Check in on upgrade
4. Setting goals for next year
5. Customer Business Review
   1. Had talked about early December because we thought we had things lined up to be further along with the stores than we are. Sean would rather change and say let’s do this in early/late January. Thing that’s going to drive this is how well the 16th goes. He doesn’t have time to go over the review until things in a stable spot
6. Any other questions or concerns
   1. In the last 7 days, 800+ deployments to the GRID via Puppet. Hovering at about 500 for a while, then it dropped to around 3-400 around Thanksgiving, but then when they came out of the freeze for Thanksgiving, they had a spike, but didn’t have any more issues from process point of view.
   2. Only about 10% of support calls are actually Puppet.
   3. R10k code manager logging - is there a debug level.

11/17

Call with John:

1. Discuss open support tickets
2. R10k questions and code manager
   1. R10k has 0 logging. Patrick asked john to open a ticket. When r10k is called we need to know if it was called and if it was successful or not.
3. Check in on mcollective
   1. Really high percentage based on a couple of tweaks
   2. Believe problem with lastrun file being empty was due to /var/dir being set incorrectly when they installed.
   3. Test deployments were full blown puppet run, believe they’ll be good when customers start deploying. Another one coming up December 5th. Now in freeze periods for the most part until early next year.
   4. No cleanup mechanism in the opsware world, that’s why there’s 10TB of packages sitting out there. Want to avoid that with spacewalk. I should never have a package in prod with a higher version than non-prod.
   5. Spending 3+ resources on support.
   6. They’ll still have an issue with timing, 15 minute windows between deployments might not be enough
   7. Nothing more they need from us right now.
4. QBR in early December
   1. Elizabeth will email Sean about this.
5. Any other questions or concerns
   1. Duplicate declarations support tickets should reduce with the onceover.

Call with Kel and John

Validate that the package is in spacewalk - separated environments for prod and nonprod in spacewalk. When app teams are building and testing on non prod, build tools handle loading packages in nonprod. When ready for prod, another tool logs into service now and creates a change request. Needs to make sure everything in prod is ready, pushed rpms from non prod to prod, and adds version tag numbers onto modules for their applications. Need a way to figure out what packages and version of packages are that we need to push. What they’ve been doing with grid env is getting build tools, when they build new package version, generates a yaml file in puppet module for version 111 packages are x version 112 packages are y.

Nick thinks this could be accomplished with puppet\_lookup. Instead of putting version of package in manifest

hiera .yaml in root directory of module, datafiles in data directory of your module

Small group of large applications made up of multiple modules. Wants one module taht lists other modules and versions to deploy.

Puppet environments - one called production, one store deploy, one store build. Dont use environments, use versions. Every store is unique. If ultimate goal was to keep things the same, can’t flip a switch and say we’re going to install new version of app on every store. So they have staged rollouts with different versions of things installed on different stores. Some stores have special versions. IN hiera they have version of module they want to install, when first

11/4

Did mco ping, came back with 8681, metrics showed 8678

- Running mco status against 300 stores with 30 timeout - 207 out of 300 messages got sent.

- removed, json flag, tried again - got 263 responses, reply line - this suggests it could be caused by the publish\_timeout limit

- edited status script to change puslish\_timeout to 10 s

- got 300/300

- increasing node target to 820 - 707/820

- 13:04 - increased status script to change publish\_timeout to 15

- ran again status again 820, 30

- 820/820 responses

- 13:05:33

- req enque 1777, time 218, qs 0 , dq, 1777

- res 263, 284, 0, 263

Decreased batch size to 50

* Ran status 820, 30
* 13:07
* 803/820 response at 13:11

10:16 Pacific - turned log output off

How long activemq broker has been running on 5f - 13:08 - at 13:08 puppet agent triggered refresh of pe-activemq service. This is due to setting jmx console to false

Rerun at 13:19 - status 820, 30

* 13:22:03
* 818/820
* Noticed 1 or 2 messages sitting in the queue that hadn’t been dispatched.
* Took about 3 minutes

Decreased publish\_timeout to 10s

* Run at 13:27:23
* 820,30
* queue size - 2, 3 (13:28),
* 816/820

Enabling metrics on 6b and 64 - if there’s messages missing, they may have ended up on 69

13:37:16 run 820,30

* Restart pe-activemq part way through
* Most messages going through 64
* 819/820

Shown tha tpublush timeout and batch size have an impact. WE can shut webservice off that will stop those restarts.

Plan for Sunday:

* Batch size and publish timeout parameters - hopefully based on what we’ve seen today that will give us a higher success rate
* Scheduled change for Sunday night starts at Midnight Eastern - start call at 11:30 eastern
* Get amq status script on all of the spokes. Charlie will send a script htat has a throttle on the amount the metrics script output
* Send us the client log -
* Put brokers into debug logging on Sunday

11/3

Call with John

Blackout period starts Friday 11/18 at 6am. Change window is from Sunday at midnight to Friday at 6am.

Deployment window is 6 hours. Today with opsware they have changes that are rolling out on a regular basis. For tonight, they have changes in 20 minute sections from midnight to 5:30. 3 change sessions per hour per facility. 6 sessions over 5 hours - 30 jobs. In an average night, we have between 20-40 jobs. No hard rules to say deployments have to take less than 20 minutes. Concern is one night I have changes going, one are on single digits, rest is on 4500 devices. They have changes where they put a restriction on how many changes can be batched together. That’s in the 400 range. There’s a lot of changes in that window. If the change took 20 minutes for the whole deployment. That’s ok.

Most changes are being sent to ISP (in store processor), ISPA is pri

STUX01 -

ISPA - in store processor application

PSP - point of sale processor

There’s one tool rental application that was a pilot and it only went to 2 stores. They created a validation package to test deployments. 6 week rollout schedule to stores. They need a VP to say yes

Pilot - 5 stores, 10, 50, ramp up to 200 started last week.

Get confirmation from John on tolerable success rate.

Follow up with Bill Weisse, Mike Stahnke, and Deepak

End of day updates.

Every action that submits a large number to individually addressed nodes has potential to submit a message to the queue that can’t be consumed because the node is unresponsive. That message with persist up to 1min 30 seconds. If in that period additional requests are submitted, that can add more undeliverable requests. If that number exceeds 200, then all further delivery will halt until the undeliverable messages in the queue drop below 200.

This could impact home depot because they’re getting a list of nodes to connect to from an external source, rather than discovery. Use activemq admin command to look at the size of that queue. The solution would be to make the modification to the policy entry for the queue=> and increase the maxPageSize

Found a lightweight way to query metrics that doesn’t require enabling the jmx console. This is a win, since enabling the jmx console can cause pe-activemq to restart. Now support can run a command and give us a result, rather than spending 3 days to enable the JMX console.

Largest number of nodes they address at a time \* number of times they will do that per 90 seconds

Summary of current Home Depot state.

The Home Depot purchased Puppet to replace HPSA. Their primary use case is using Puppet to deploy applications. To do that, they use a series of mcollective commands. They have been doing this successfully in their internal datacenter environment for more than a year.

Recently, they have extended this workflow to their retail store environments. The deadline for developers to deploy their store applications through Puppet rather than HPSA was November 1st. As a result, the number of endpoints mcollective was hitting increased rapidly over the course of the last 2 weeks. The maximum number of endpoints is over 8k.

Last week Thursday 10/27, Home Depot opened a support ticket due to machines dropping connections during deployments. When mcollective sent messages to a large number of geodiverse endpoints, mcollective was not consistently hearing back from the entire set.

Due to the complex nature of their mcollective topology, we have not been able to isolate where the connections are being lost. Furthermore, the component that is driving these connections is ActiveMQ, which mcollective is built on top of, and is not our tooling. Charlie, Adrien Thebo and Elizabeth spent several hours trying to diagnose this last night, and were able to rule out network latency as the issue, but could not determine the source of the lost connections due to lack of activemq expertise.

Most of our larger customers use Mcollective to drive their orchestration. Mcollective is included and supported in the LTS version, and our new orchestrator is also built on top of ActiveMQ. We will continue to experience these issues, and need the expertise to troubleshoot complex ActiveMQ topologies at scale with geo-diverse endpoints.

11/2

Attendees: John, Kel, Russell, Sean, Adrien, Charlie

Plan is to do 2 deployments, first to a small subset of stores, and next to a larger subset of stores.

Due to wrong timing, we missed the smaller deployment, so only caught the second larger deployment.

Just as the deployment to ~820 nodes was about to begin, the pe-activemq service died on one of the hubs. They couldn’t get the hub back up and running before the end of the run, and the run failed on almost all deployments, only about 50 succeeded.

Decide to do a run against ~200 stores with one hub disabled and leave metrics enabled. Listening on e6b, not listening on e5f

Noticed on e5f that there were outgoing connections to one hub, but also to the CA/MoM. Disabled puppet and activemq on lp0e69. Looked at logs on e5f, noticed it was still trying to talk to e69. Charlie asked them to look at /etc/puppetlabs/activemq/activemq.xml and noticed the jetty.xml configuration was missing.

A scheduled test was run against 10 stores (~40 servers). On that run, 5 servers failed, 4 were at one store.

Now we’re going to try and do the run on 200 nodes. All nodes should be running through 6b, since 69 and 64 are both shut down. Noticed that pe-activemq service had just been restarted. Did further investigation and noticed that daemonized puppet runs were turning web console off, and puppet agent -t was turning back on. Decided to puppet agent -disable on 6b and 5f to eliminate that issue for this test.

We did the test, and it only passed on 34/200 nodes

Adrien asked about the network quality, and due to stores being all over the world, the network quality really varies. Although, they haven’t noticed a correlation between issues with the network and the mco issues.

Then ran just mco rpc status against 50 nodes with a 45 s timeout. All 50 came back. Bumped timeout down to 30s, then 5s and we still got all 50 back.

Looking at their broker code, saw that there were --batch 300 and --batch-sleep args in script, so adding those to test. Still worked. Upped hte number of target nodes , all worked at 50, 200, 820 only returned 65,1 and 650 only returned 529. Decided might have something to with r10k because they pass filters when doing r10k runs. Kept doing status tests:

200/200

400/263

300/186

200/200

250/241

225/200

201/201

210/210

220/220

224/208

223/203

221/201

Identified tipping point was 220, Charlie noticed that 220 is divisible by 4, so there may be something weird happening when they hit store 56. Randomized list, ran against 200/199. Randomized again, 200/197. Tipping point stopped being reliable.

Found list of nodes that failed, going to look at /var/log/puppetlabs/mcollective.log - that will show if they’re losing connection to broker or something is happening there. Looked at one successful node, one that failed, and noticed that one received message and one didn’t, both coming from same broker.

Now going to look at the 5a broker. Saw address already in use message on broker

Russell is asking if they are ever going to be able to figure this out because it’s too complex? At the end of the day, they have to be able to send to 2000 stores, 8000 devices. How do they reduce complexity?

Going to keep 5f spoke live, for all other spokes, disable puppet agent, stop the service. Reset log settings on 5e.

On 5f, went into activemq.xml, changed transport 61613 line to add +nio+ssl. Restarted service, pid file said it was running, but service pe-activemq status said not running. Mco pings were responding and servers were responding

Need to get together later today: when we can test, what the debug plan looks like. Next round is Sunday night / Monday morning. Send us /var/log/activemq directory.

\*all spokes were still configured to talk to 69 still, don’t know why

\*if it goes through more than one broker, we still get the same result

10/27

Here is the agenda I have for the meeting:

1. Clarify MCO Issue, schedule call for tomorrow
   1. Russell is working on this, John will ask him to update the ticket with more details on what they’re trying to accomplish and the commands they’re running.
   2. First thought this was related to increased load. Going to toy with the timeout to begin with. Saw timeout issues, they’re getting nervous because everybody is going to start deploying apps through Puppet starting Tuesday. What do they need to look out for? They’re concerned about increasing the timeout because people will be waiting for their deployments to be done. After Puppet does a runonce, they do another mco run to get last run status so it pipes into service now.
2. Puppet Code deployment / automated tests - check in on progress
   1. Elizabeth spoke to Matthew, rspec tests are running as expected.
3. Oct 31 deadline check
   1. After deadline they’ll want to talk about replacing MCO - Elizabeth suggested PS for this.
4. Check in on upgrade
   1. Passed IRB saying they now have permission to move forward with upgrade.
5. Any other questions / concerns
   1. THD broker polls service now for changes that have been approved, updates git appropriately, then says go run Puppet. Then runs MCO to get status to input into service now, if no status comes back, assumes it failed.

10/12

Call to talk about rspec and r10k workflow. Lower lifecycle they have the GRID. About 4 different environments within QA that they can deploy to. Within an image master is a profile, users will deploy their applications, takes application war file, takes a container and creates an rpm. People will do that and rename their application on the eclipse side and that deploys a duplicate. That brings down the image master and kills deployments on that level. There’s a node specifier in rspec and says I have role qa custom image master. Only way to test is pull all modules down as fixtures then do. It’s possible that two teams could be deploying the same module at the same time. They just tell the customer to rerun the job.

Nick says they’ll be able to define spec tests for each role and profile.

Summary, Nick pointed out Dylan’s onceover module and it sounds like this will resolve their issue.

10/7

Converting from Code Manager to r10k on hold until conversion is done Nov 1. Today they have an appliaiton that has a java server page, compile it to a war file. Take rpm and deploy out to spacewalk. Then Puppet updates a single module to get that rpm -

10/6

1. Puppet Code deployment / automated tests
   1. Scheduled call for 11 Pacific tomorrow to talk through their workflow.
2. Discuss open support tickets / check in on upgrade
3. Any other questions / concerns
   1. Overly busy, have a bunch of people onboarding and Puppet is being a pain in the ass
   2. Mostly, in opsware, it takes an rpm pushes it to the devices and does an rpm install command. It doesn’t care if you have the 30 packages managing the same file. They are seeing that their developers are doing this pretty frequently. Most of their issues are falling under user training.
   3. Review board was going to just review their paperwork, but now they’re doing a full blown deployment review.
   4. Looking forward to the next release where they’re on the 18month cycle. It’s easier because when you change from 2015 2016, they see it as a major release.

9/29

1. Discuss open support tickets / check in on upgrade
   1. Next week John is putting the paperwork together to submit, gets reviewed Oct 11, then they’ll be approved to move forward to 2016.2.1
2. Puppet Code deployment / automated tests
   1. Bill says they do do rspec test on jenkins server before it gets pushed to code manager. He thinks running rspec against everything, not just individual modules, will solve the issue.
3. Any other questions / concerns
   1. Bill would like some time to work through code deployment workflow to see if they can make code manager / filesync work for them.
   2. Bringing more people on, they do things similarly, but all have their own version of thinking. Working through challenges of getting deployments going.
   3. Big push is being able to do deployments to stores.
   4. Biggest challenge is translating developer thought process form iterative linear development process to a model driven approach
   5. Send people to learn.puppet.com every day. It’s a huge improvement to what they had a year ago

9/22:

1. Discuss open support tickets / check in on upgrade
   1. What can we look for in the log that can show us if we’ve lost one of the hubs. Charlie was able to give them the information they were looking for. Tested bringing down one of the hubs and mco ping numbers stayed consistent.
2. Puppet Camp Atlanta
3. Account team introduction meetings
   1. Either a lunch or just meet at PuppetConf - Sean cannot guarantee he will be available. Priority is testing, Cherise, PuppetConf
   2. Dan will be hearing from Charice Brown - 3 year licensing and support, continue for next 3 years. What we’re looking at is let’s give you 3 years up front right now. That is to include the TAM
4. Any other questions / concerns
   1. Overly busy - announced end of October cutoff. Now everybody’s coming out of the woodwork. Focus is getting people moved. Timing is where they expected them to be. There’s some things they’ve learned along the way. Thought the mcollective stuff was figured out, when they hit it again it was a volume related issue.
   2. End of October cutoff - they’re set up to meet it. Still troubleshooting weird certificate challenge. In stores they’ll do a noop run, consistently get failures with a certificate message. Still trying to figure that out. John will likely open a ticket on this soon. Biggest challenge is getting their customers to spend the time to make the change.
   3. John is playing around with getting agent installed on AIX servers. Once that’s done he’ll get back to the upgrade.
   4. GRID stuff is moving along nicely - 2,000 puppet deployments a week. People are testing a lot in non prod, iterating pretty quickly.
   5. Challenge is in the store space. They can do a manual push in a controlled environment easily, it’s when we’re gluing them all together that’s where things get complicated. If somebody fat fingers something that can impact / break production. If we were managing individual stores this would be easy, but they’re not. They’re managing individual applications.
   6. Built a model around 1 application / container. Reality sean uses container 1 and Elizabeth uses container 1. They’re discovering it at compile time. Checked into git, and when Jenkins does it’s thing they don’t have any automation that says “how many people have declared container 1” Challenge is by the time they have committed it and it’s getting compiled, you’re blocking other people from deploying their code.