What to Monitor and How to Report

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Who is this presentation aimed at

- ANYONE , Technical or Managerial who manages a collaboration environment
- Anyone who has to monitor
- Anyone who has to report
- Mix of Management and Technical, technical examples but technology independent
- Decision criteria when trying to work out WHAT you need to monitor. and Report.
- Framework for starting on your monitoring/reporting requirements

Agenda

- Terminology
- Discussion of Key Mistakes that individuals make when monitoring and reporting on the collaborative environment
- Operational disaster examples. How smart monitoring and reporting could have prevented/Mitigated them
- Decision Criteria when deciding what and how to Monitor and Report
- Common Monitoring and Reporting requirements

Agenda

- Common errors made when monitoring
- Known disasters (liberally lifted from worst practices)
- Decision criteria when deciding what to monitor and report
- Decision criteria when deciding what Monitoring & Reporting tool to buy (yes inside secrets will be shared)
- Synopsis's

Who am I ?

- Eileen Fitzgerald
  - Notes Administrator, Global Notes Architect
  - Manager Domino Administration team and Domino Development team
  - GSX - Product Manager and Customer Service
  - Just a little ittty bit process oriented

Terminology

Terminology

- Server - Think about this one .. Hardware or Software Server
- A customer - The user of the IT service you deliver
- Service - What that server delivers and you deliver to your customers ..i.e. Messaging
- ITIL - IT Infrastructure Library- Framework for Service delivery
- SLA - Service Level Agreement
- KPI - Key Performance Indicator
- CSF - Critical Success Factors

Common Mistakes

Monitoring and Reporting Key errors

- NOT Having a clear deliverable and objective..
  - What are you trying to achieve ?
  - What will what you are doing help you achieve it ?
  - How will you measure the effectiveness of your monitoring and reporting ?

Monitoring and Reporting Key errors

- Try to do everything .....information overload, not sustainable.
  - Identify your target audience
  - Identify what is important to them
  - Deliver the information when they need, how they need it

Monitoring and Reporting Key errors

- React - Monitor SLA's and react when they are broken
  - Identify what is critical and focus on that
  - SLA 's are influence by KPI's
  - Identify the KPI's that influence your SLA and manage those
  - Manage your KPI's and the SLA's take care of themselves

Monitoring and Reporting Key errors

- Gather information from multiple sources then try and manually collate
  - Start as you mean to go on ..
  - Set expectations .. High overhead is not sustainable
  - You will make mistakes
  - Manual overhead in 2011 ?
  - Are you comparing like with like ?

Monitoring and Reporting Key errors

- Focus on the technology NOT the Service the technology provides
  - The server may be up and running but is it delivering the service that its suppose to ?
  - The business drives everything
  - Monitor Server A , not Server B.. process spans both
  - Factor in Down time or allow for it (Clustering)

Monitoring and Reporting Key errors

- No effort made to track and report on operational tasks
  - Repeat tasks , invisible overhead
  - Critical to the successful running of the any collaborative platform
  - Not just about user provisioning , Mail in databases etc etc

Monitoring and Reporting Key errors

- Allow Managers to push down SLA's..
  - It will happen .....
  - You will be reactive ....
  - Implement internal SLA's
  - How can you identify the unexpected if you have not defined normality ?

- VERY VERY Worst Practices

Known Disasters - Hell's Agent

- What happened ?
  - Developer ran an agent on a 4GB database, with K's of documents , with LOTS of replicas globally.
  - Set to run on all documents , on every replica , every hour
  - It ran , replicated , created replication conflicts, replicated, ran again on original + Rep conflicts , replicated
  - And it grew and it grew and it grew.....

Known Disasters - Hell's Agent

- How monitoring and reporting could have prevented it
  - Run Regular reports on Access levels
  - Monitor Agent Run times
  - Monitor Errors
  - Replication reports. Document Count.
  - Alert on Replication time exceeded
  - Database size monitoring

Known Disasters - Ohh is that important ?

- What happened
  - 'Someone' used adminp to delete Local Domain Servers Group
  - They realized their error and disabled replication on the NAB, did not think of Adminp
  - AdminP did its job and gradually deleted LocalDomainServers from EVERY database in the environment
  - Replication Stopped
  - LocalDomain Servers had to be MANUALLY added into every single replica instance . MANUALLY.. (thousands.. upon thousands)

Known Disasters - Ohh is that important ?

- How it could have been prevented
  - Replication Monitoring
  - Log Scanning

Known Disasters - Network Team messed up again..

- What happened ?
  - Large Site 1,000's of users
  - DNS is corrupted on router server in DNS
  - ALL external Email is returned , unable to route to unknown domain, cannot find internal users / domains. Fails Dead Mail
  - Mail Box grows and grows .. rapidly
  - Mail routing grinds to a halt internally
  - Server runs out of diskspace
  - Major deals are lost.. time critical information

Known Disasters - Network Team messed up again..

- How it could have been prevented
  - Monitoring on Dead Mail
  - Diskspace Monitoring
  - Pending Mail Monitoring
  - Log Scanning

Known Disasters - Lack of Synchronicity

- What happened ?
  - Large Site , 2K users
  - Heavy investment in clustering for high availably
  - Cluster Replication AND Replication at end of day
  - Cluster task was stopped (in the morning) by an admin to check something, forgot to restart.
  - Server crashed at the end of day, hard disk corruption
  - Days worth of data for 1000's of users , gone.

Known Disasters - Lack of Synchronicity

- How it could have been prevented
  - Monitor Cluster Task Availability
  - Monitor Cluster Queue Depth
  - Monitor Cluster Time Delay
  - Don't hire stupid admins ...

Known Disasters - The Email from Hell

- What happened ?
  - Someone sent an Email (approximately 2G.. attachment)
  - Slowly ground the server to a halt
  - No mail routed
  - Crashed Router

Known Disasters - The Email from Hell

- How it could have been prevented
  - Monitor Server Availability (from a user perspective)
  - Monitor Router Availability
  - Monitor CPU usage
  - Monitor Pending Mail

- Decision Criteria when Monitoring and Reporting

Decision Criteria when Monitoring and Reporting

- What are you trying to achieve ?
- What is critical to the business ?
- What is the overhead ? Do the results warrant the overhead ? How much time does it save you ?
- How sustainable / Automated is it ? What value will the data have in months time ?
- How when will you distribute the results ?
  - Alerts - How to notify , escalation, reminders ?
  - Reports - Email ? Web site ? etc etc

Decision Criteria when Monitoring and Reporting

- If purchasing ,
  - Overhead (Server , Client , Reporting ..)
  - Get the Vendor to explain how their product meets your pain points
  - Customer references
  - Examples from other customers
  - What templates , pre configured alerts do they have to get you started ?
  - How soon can you be up and running ?
  - Cost & maintenance

Decision Criteria when Monitoring and Reporting

- What are your SLA 's ?
- What are the KPI's that impact on your SLA's
- What reduces your workload , what provides you with the opportunity to perform more business value added tasks ?

- COMMON Monitoring points and Reports

Common Monitoring (real time alerting ..)

- Server Availability
- Service Availability
- Mail Routing Delivery (Is mail reaching its destination)
- Diskspace Monitoring
- Log Scraping
- Change Control (Key Configuration Elements)
- Task / Services availability
- Mail Transfer (Time , Dead, Pending)
- Cluster availability and health
- Agent Monitoring
- Critical Database Monitoring
- Replication Monitoring

Common Reporting SLA's and KPI's

- Availability
  - Domino Availability Index
  - No of Sessions
  - % CPU
  - Free Disk
  - Server Transactions

Common Reporting SLA's and KPI's

- Performance
  - Indexer Update
  - No of sessions opened
  - NSF Buffer
  - %CPU Time
  - %Mem in Use
  - % Physical Disk Activity
  - Point of failure between server and client

Common Reporting SLA's and KPI's

- Messaging
  - Average Hop Count
  - Average Dead Mail
  - % Successful Delivery
  - Average Mail Pending
  - Router Availability

Common Reporting SLA's and KPI's

- Mobile
  - Server Availability
  - Inactive / disconnected users
  - Hung Messages
  - Average Mail pending
  - Failed connections / transfers

Common Reporting SLA's and KPI's

- Business Critical Databases
  - Average Replications
  - Document updates
  - Agent Run times
  - % Successful agent runs
  - Activity usage
  - General Server Performance

Common Trend Reports

- Server Availability
  - (%Up 24h, Avg Availability Index, Network %Up 24h, % Avg CPU used 24h, % Avg Ram used 24H,
- Diskspace
  - (% Total used/ Free, MB's total used/free)
- Mail Flow
  - (KB Transferred , SMTP Transferred / Routed , Total, Mail Delivered)
- Mail Delivery time
  - (KB, Total mail, Average Delivery time)

Common Spot Check Reports

- Agents - Errors , Run Time, successful
- ACL - Additions , By ORG Unit, By Name
- Databases / Mail files - Size , usage , quota , Indexes
- Person docs - Orphaned , Mail forwarding

- Recap

Recap

- Focus on the Business , understand how they use your service
- Understand the Services you deliver
- Monitor the Services and Quality of Service delivery
- Automate everything
- Compare like to like
- Start with the basics and gradually improve

- Questions ?

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