



JKT

Whitepaper

Challenges of Platform and DB Support: Where Managed Service Framework can help

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Introduction

Data store (Database, data warehouse, document/file repository) of any organization is core to their business and critical to the success.

One survey indicates that over 40% of organization are not monitoring their data store in structured manner, some adhoc monitoring is there but that leaves many gap and compromise on critical area of organization. Growth of data store is another aspect which organization started realizing now. 'System of record' is becoming the subset of 'system of engagement'. Growth of data multiplied many fold in past few years. Organization don't know how to deal with the pile of data, not sure if it's usable and hence not able to archive or throw it.

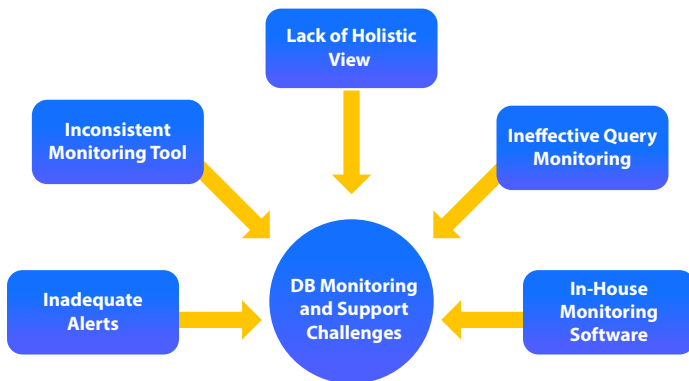
For many organization monitoring and support are more of reactive in nature then proactive. Keeping an eye on some log files combined with occasional user complains, gives DBA a gut feeling that everything is alright and no need to do much for monitoring. Regular backup and occasional application of patch to the server is the only maintenance that's done in the name of monitoring and support.

Implementing Managed Services to support platform and database is that last thing organization wants to do. At the best managed services used for supporting critical business application or processes. And of course managed services on certain scale only. But with scale also

bringing DB and Platform support not given much priority to bring in Managed services.

Over the past few years organizations have started realizing the importance of structured support services and trying to figure out the best way of getting it done.

Challenges of Platform and DB support



Organizations faces various challenges when it comes to Platform and DB Support:

- » Consistent Monitoring tool – Lack of consistent monitoring tool makes support challenging and add lots of uncertainty.
- » Inadequate alert – Alert at right time to right set of persons with proper accuracy is key of proactive monitoring.
- » Homegrown solutions – Over the year's organizations DBA written some scripts which grow to become monitoring solution of platform and database but lack the 360 degree view.
- » Holistic view – View of DB and platform is fragmented and not giving a complete dashboard

Inconsistent Monitoring Solution

Although there are many OpenEdge monitoring solution available to support but organizations face challenges when it comes to consistency in those solutions.

OpenEdge Management from house of Progress is all inclusive jumbo tool to do everything. But it comes with a price tag and certain overheads. For some

organizations it's not the right monitoring and support solution may be because of learning curve involve of setting up and using it or price point or version or size of it. Many other solution such as ProMon or ProTop and home grown utility has its own set of limitations and challenges.

Inadequate Alert

Alerts are core functionality of any monitoring solution. You can never have too many of them or too often of them.

But if its inconsistent or irrelevant or you have trouble finding meaningful alert from the heap of data then you got a problem at hand. Your alerts need to be optimized. Setting the right threshold so that you're DBA/SA can act upon in due course of time. Having modifiable alert threshold gives you flexibility to try out various levels best suited for your organization and finally settled for the optimal threshold.

Home grown solution

A home grown solution is a good solution as long as it covers all the basic parameters right which is not the case many times.

Most home grown solution are reactive in nature and geared towards one or other aspect of monitoring and ignoring or not dwelling on some part of monitoring which seems less important to your solution developer. Like successful backup may sounds important to many but verifying the backup on regular interval or testing the restore may not sound as important to many. It's important to make sure that home grown solution covers all the parameter right.

Holistic View

A comprehensive dashboard with all the

vitals of your server and database at one place goes miles in ensuring a trouble free support services.

No matter how comprehensive your reports and how many parameters you monitor if you don't have a cockpit view of all your vitals at one place you may end up missing to check some alert or log if it's in some other corner.

Establishing a Managed Service framework with Structured Service Solution is key to the cost effective stable database and support services.

Managed services (by definition) is an outcome based service measured in terms of Service Level Agreement (SLA) & Key performance Indicator (KPI). These two terms SLA & KPI actually gives you a tool kind of entity to define and elaborate your both functional and nonfunctional requirement from the service. In fact it helps you to objectify your requirement (Ex: I want my database to be up in max 30 minutes) and thus leaving no scope for any requirement falling through cracks for both vendor and customer. This clarity at one hand makes easier for vendor to estimate the resources and capability required to deliver these services and on other hand enables the customer to actually judge the vendor performance against the agreed service requirements.

Some of the problems that we have discussed above like "inconsistent monitoring solution and Inadequate alert" can be more objectively defined in terms of SLA and KPI related to consistent monitoring solution. For example: We can say that all critical databases must be monitored 24*7 and an alert should be generated and communicated to intended recipient for space/size issue as soon as it crosses the threshold of say 80% for critical databases and 90% for non-critical databases and the required KPI for this SLA is 100% in case of critical database and say 95% for non-critical Databases.

Keeping this in perspective we have integrated our monitoring solution 'Proactio' with our Database and Platform Managed services framework. It's a two way relationship. Proactio adds value to the framework and also gets feedback from Managed services framework to enhance its own feature and capability.

The main value proposition for Managed Services is to deliver 'predictable services at a predictable cost' with continuous improvements and proactive value addition. The agreed SLA & KPI will ensure the 'predictable services at a predictable cost' philosophy of managed services and would actually reflect whether this is happening or not and if it is not happening then will become trigger for service improvement.

A service level target for future continuous improvements coupled with service bonus clause of managed services will become a basis as well as an incentive for continuous improvements leading to benefit of both customer and vendor leading to reduced TCO (Total cost of ownership).

One of the key benefit of managed services is to free up management bandwidth of customer to focus on core business and one won't be surprised if the concept of SLT & KPI, the building block of managed services philosophy, will help us in measuring this aspect as well leading to a definite cost saving for customer.

In one of the engagements, We have implemented a KPI related to 'No of hours client is engaged per month including the service review meetings' and the goal is that this should reduce by 20% in a quarter. This adds an entirely different dimension to the service improvement which can be achieved by adopting to manage services engagement model.

One more advantage of managed services model is that you get access to best of breed tools at a reduced cost. Though Proactio is an open source tool but let's assume this becomes a proprietary tool in future then as part of managed services offering you get access to this tool at a very low cost which otherwise may not be the case.

The idea of managed services actually enables the management of IT services simpler and easier from vendor perspective and tracking of IT service's objectives from customer perspective as number of measurements required for SLA & KPIs can be wrapped around both these aspects leading to lesser effort required from both customer and vendor towards effective management of IT services.

It truly facilitates the concept of "Management by Measurement" and thus instill an environment of alertness in the IT service Management echo system.

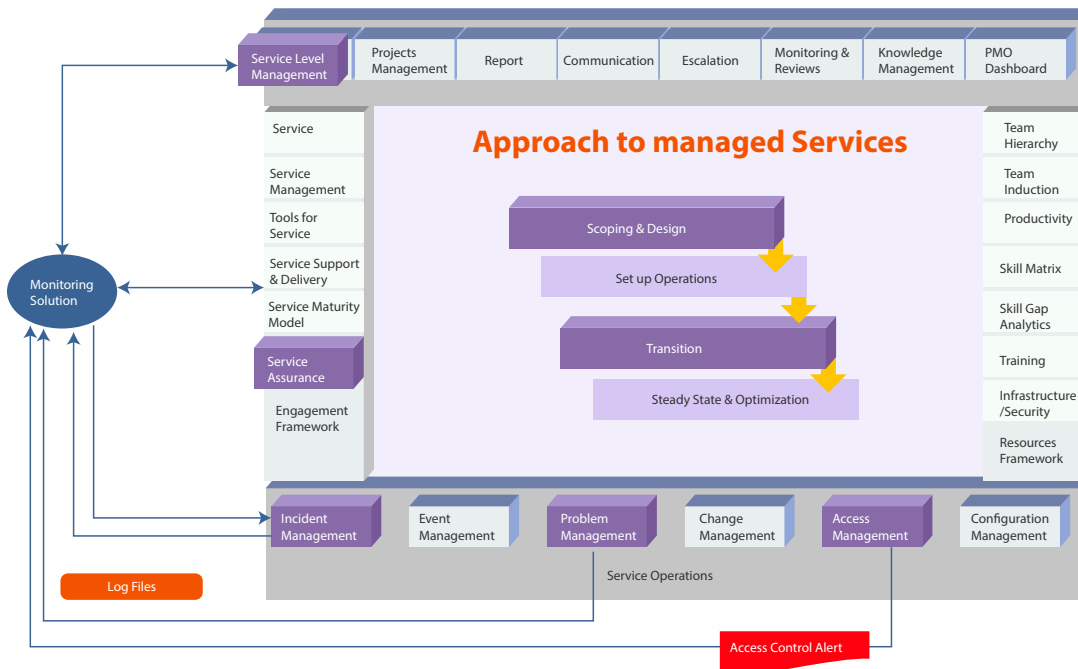
Proactio Monitoring tool is an integral part of our Managed services offerings in Database & Platform space. The provisioning of monitoring through Proactio impacts and enhances the effectiveness and efficiency of our overall Managed services framework by forming a two way communication or relationship.

design are process design , tools design, measurement and metrics design.

As we know the important aspect of service design are process design , tools design, measurement and metrics design. With Monitoring in place through Proactio,

design and configuration of the services will be impacted.

For example if I am designing the incident management process, we will have to take monitoring alert as one of the input and trigger to invoke the incident management process. This will require to be included in the SOP (Standard Operating Procedure) and Training manual that we will create for the Incident management process. It will also impact my Ticketing tool selection or its design if we are looking



The above picture depicts our overall Managed services framework and I am sure you will have your own with some changes here and there.

The central Core of our Managed services framework is “ Approach to Managed Services” which starts with Scoping and design , then setting up operations followed by Transition and then moving into steady state where SLA based service will kick in and the continuous optimization encircle the whole framework. I will explain how it impacts our Approach to managed Services starting with its impact on Service Design.

Impact on Service Design :

As we know the important aspect of service

for benefit of integrated service management as we will now look for an integration between the Proactio and the ticketing tool so that and alert from the Proactio can auto create an incident in my ticketing tool. We have done this integration for one of the open source tool named MANTIS.

Measurement and metrics design which is an important aspect of a service design will now have some new metrics for example : What % of incidents were logged using the alert from Proactio and what from other sources. etc.

How it impacts Service transition?

If something impacts the design then it will impact the transition as well. Let's assume we want to generate an alert about response time for order processing then this need to coded accordingly as well.

Impact on Service Operation

So we have seen how Proactio impacts your IT service design and now we will see how it impacts the Service Operation life cycle phase of the IT service.

As mentioned earlier, monitoring through Proactio enhances the effectiveness of our Service Operation and also get important inputs/feedback from Service Operation to enhance its own capability and features. So if you look at the Service Operation block at the bottom in above picture , almost all the processes , be it incident management ,Problem management and access management they all get immensely benefited from Proactio monitoring.

For example : A monitoring alert from Proactio can auto create an incident when a particular threshold has been breached and thus enable the support team to resolve it before it impacts the user or system thus greatly enhancing the effectiveness of incident management. How it helps the problem management?

The analysis of log files generated from the Proactio over a period of time will help in detecting and analyzing the problems with the system and thus providing us the benefit of proactive problem management.

Proactio enhances the effectiveness of Access Management as well:

So If there is any unauthorized user accessing the database, or trying to access the database Proactio will generate a security alert thus helping the access management process to improve the access control in a more effective way.

Impact on Service Operation

One more important aspect of monitoring is that together with event Management, it also forms the basis for automated operation as some types of automated activity can be monitored by exception

thus removing the need for expensive and resource-intensive real-time monitoring.

Also some action can also be automated based on a nature of alert like “ Auto creation of incidents based on critical alert” which I talked about earlier. It does save operational cost and time.

As mentioned earlier ,Service Operation can also provide feedback , based on the incidents and problems recorded over a period of time , about any attribute to be included in the scope of monitoring and thus providing a continuous source for the enhancement of ProActio.

Proactio helps in improving Service Assurance

I believe by now it must be clear how the proactio will greatly enhance the service assurance aspect of our Managed services framework by enhancing the effectiveness of our Service design and service Operation and many other aspects as well. Proactive monitoring and automated alerts by Proactio detect problems, before they adversely impact the system and affect users and thus improve the availability of mission-critical database applications leading to service assurance.

Proactio helps in improving Service Governance

Last but not least , Proactio will contribute in governance of the services as well .

Proactio generate various monitoring reports (Daily/Weekly) thus helping the SLM (Service Level Management) process to manage the service levels in more effectively.

Conclusion

We have seen how the integration of Proactio and our

Managed Services framework add value to each other. They both complements each other thus making our managed services framework more robust, reliable and in turn gets valuable input from service operation to enhance the feature of Proactio itself.





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