Mobile Admin

Real-time Dashboard and Notification System
Introduction

Mobile technology is advancing quickly, and as it improves it increasingly promotes an environment focused on the needs of the mobile user. From social networking, to finding your way around, entertainment, productivity and learning, mobile technology supports us as individuals in ever more important ways.

Mobile Admin is used by thousands of IT professionals across all kinds of organizations throughout the world. Its major strength is that it provides IT experts with both control and freedom to do their jobs without the need to remain tied to their desks. Also, unlike many solutions and services that are sold to and brought in by senior management, Mobile Admin is most often adopted by the front line people themselves, and once the power of the tool is experienced, they will often move heaven and earth to get the technology accepted within their organizations.

The key element of why Mobile Admin has such strong user loyalty is in its ability to directly support people who really don’t get a break from their highly complex, demanding jobs even when they go home at night or for the weekend. At Rove we’ve heard many stories over the years from users who were able to deal quickly with a crisis (large or small) with the support of Mobile Admin, and often it was during circumstances that were far from optimal, even times of great personal stress.

As we continued to hear from users a common theme emerged: despite the investment in and support of the organization-sanctioned monitoring system(s), IT staff are given very little warning of crisis emerging within their realm of responsibility.

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The Benefits of a Personalized (Mobile) Monitoring System

The ability to create peace of mind and excellent situational awareness is the core objective of the organization’s monitoring system — and at times it does this very well. With their sophisticated functions and comprehensive feature sets, monitoring systems in general provide very good tactical awareness of the state of the organization’s networks and services, and new alerts are broadcasted via email to IT teams in order to keep them informed of changes (which may or may not be of interest to all).

Despite their sophistication (or perhaps because of it), monitoring systems often lack the flexibility to be valuable to the individual. Most systems can’t be quickly adjusted to monitor specific events for a short duration — something that would be of great benefit to IT professionals in their jobs. As well, the majority of monitoring system installations are managed by a designated person or team, and in larger organizations they’re governed by policies limiting what configuration changes are allowed. All of these factors make it very difficult for staff to customize their organization’s system to meet their day-to-day needs.

To make matters even more challenging for individual IT staff, they often find themselves being spammed by their monitoring system as the same alert is sent to them repeatedly until it is acknowledged. This can be quite frustrating to the already over-burdened administrator and result in decreased attention to e-mail based alerting.

Intensive care in medicine is well established. A parallel can be drawn with IT where, instead of a patient, the intensive care relates to a service or piece of equipment that is essential, still in operation, can’t be easily replaced, and may be prone to sudden failure or loss of functionality. During these tenuous times system administrators need to keep a very close eye on the situation. However, when intensive care situations arise there is seldom the opportunity to establish the short term monitoring scenarios required to support the administrator.
Without the support of some kind of automated monitoring a sudden failure may occur, creating significant problems.

What IT administrators need is a simple-to-use monitoring system that overlays the deployed organizational monitoring capability — a system that allows any user to easily configure alerting scenarios of their choice and take full advantage of mobile device notifications no matter where they are.
Mobile Admin's Real-time Dashboard and Notification System

Mobile Admin provides users with monitoring and alerting capabilities that allow them to easily create short term monitoring scenarios suited to their individual requirements, enabling them to deal more effectively with intensive care situations.

It provides a level of personalization that allows administrators to cut through all of the message noise and receive an aggregated, real-time view of only those issues relevant to them.

Mobile Admin Dashboard Alert

The prime notification interface within Mobile Admin for alerts is the real-time
Dashboard. The dashboard is comprised of a live display showing a list of the most recent alerts; normally the dashboard display resides as a background task until summoned forward.

Trigger conditions for alerts are user definable. When criteria for an alert is met, the user is made aware via a customizable aural warning (for example their device ringing) and will see the alert color coded (red, yellow, green) on the Dashboard for immediate recognition of its severity.

The synopsis of the alert message is shown, and if the user selects the alert he or she is taken within Mobile Admin immediately to the next action required. The next action could be as simple as calling someone, or perhaps jumping into another part of Mobile Admin to restart a server, review system logs, or going to a specific URL to report an issue.

The Dashboard alert message can also reflect information from its source system, such as the title of the incident report.
Drilling Down from an Alert

Once an alert has been reported within the Dashboard, the user is able to drill down into Mobile Admin to manage the problem directly from their handheld. An example in the case of a new service incident progresses as follows: the user drills directly into the ticket to view details, he/she sees that the problem is a virtual server failure, he/she drills down further and is directed to the VMware Management functionality within Mobile Admin, he/she then restarts the VM from within Mobile Admin.

Below is an example of a BMC Remedy ticket drill down from a Blackberry. The user is alerted to the ticket and sees the alert details on their mobile. He/she drills down and is brought into the BMC Remedy functionality within Mobile Admin to view the ticket details and begin remedial action.

Drilling down into an alert from BMC Remedy Service Desk
Sources of Alerts

Alerts can be configured from 6 main sources:

1. Mobile Admin’s monitoring system
2. Infrastructure monitoring systems
3. Incident and change management systems
4. Backup systems
5. HP iLO
6. Cloud Monitoring

Note: The dashboard will aggregate alerts from any combination of sources configured. For example, alerts could arrive from Mobile Admin’s monitoring sources, Nagios and new BMC Remedy tickets.

Mobile Admin’s Monitoring System

Mobile Admin’s monitoring system is designed to facilitate quick, convenient and powerfully easy ways to set up mobile-based monitoring scenarios.

Mobile Admin enables the monitoring of performance for windows-based servers, including windows-based virtual servers and user machines. Alerts can be created for low resource conditions and non-responsive behavior, as well as when recovery conditions are met. In addition, any IP address can be monitored for ping response time with the user being alerted to excessive delays or non-responsive conditions, as well as return to health conditions.

As previously noted, many organizational monitoring systems rely on e-mail as their main alerting interface. By contrast, Mobile Admin’s monitoring system doesn’t require e-mail for alerts and can thus effectively monitor the corporate e-mail system’s health.

Below is an example of an Android and iPhone showing Mobile Admin’s real-time Dashboard receiving alerts from the Mobile Admin’s monitoring system:
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Dashboard with alerts from Mobile Admin's monitoring system on iPhone
Dashboard with alerts from Mobile Admin's monitoring system on Android Device

Anatomy of a Dashboard alert
Each Mobile Admin Dashboard alert contains essential details such as the alert severity, source of the alert, and information on what has occurred to trigger the alert.
Alerts from Infrastructure Monitoring Systems

Mobile Admin’s monitoring system integrates with infrastructure monitoring systems, allowing users to cherry pick specific alert criteria and have corresponding events propagated from the system to their Mobile Admin Dashboard.

Currently supported Dashboard integrations:

1. SolarWinds Network Performance Monitor
2. BMC Performance Manager Portal
3. Nagios Monitoring
4. Microsoft System Center Operations Manager

Dashboard alert from Nagios monitoring system
Alerts from Incident and Change Management Systems

Many organizations intently track the arrival and resolution time of service tickets as they must stay on top of their service level agreements. Mobile Admin’s real-time Dashboard provides direct support for speeding up ticket notification and resolution.

As new tickets arrive, change state or close, Mobile Admin Dashboard alerts notify users via their mobile device. Users can then take immediate action by jumping directly to the ticket to obtain additional details, edit the ticket, review event logs, evaluate status or take a number of other remedial actions from within Mobile Admin.
Currently supported incident and change management integrations:

1. BMC Remedy
2. CA Service Desk Incidents
3. CA Service Desk Change Management

Alerts from Backup Services

Fault free operation of backup systems is crucial to protect the core assets of the organization. Should the backup system process run into trouble, alerting the administrator via his/her mobile device will greatly improve response time to these issues.

Currently supported backup integrations:

- Symantec Backup Exec
Alerts from HP iLO

HP Integrated Lights Out provides embedded server management functionality. Mobile Admin’s Real-time Dashboard and Notification System notifies you of changes in a server’s iLO Health Status, including:

- Status of Server Fans
- Status of Power Supply
- Status of Disk Drives
- Status of Temperature Levels

Mobile Admin’s Dashboard with Alerts from HP iLO

Expanded view of Mobile Admin’s HP iLO Notifications
Alerts from Cloud Monitoring

Rove’s monitoring system integrates with the Amazon Elastic Compute Cloud which provides resizable compute capacity in the cloud. Users will be alerted to EC2 scheduled events and CloudWatch alarms via the notifications system.
Mobile Admin Agentless Alerting Architecture

Mobile Admin supports mobile clients for both smartphones and tablets; the supported device list grows as new devices arrive on the market.

The Mobile Admin Server is an agentless technology that typically resides within the network or cloud the user wishes to manage, and the connections between the Mobile Admin Server and the clients are secure.

All alerts are processed by the Mobile Admin Server. When a new alert is detected a notification
payload is created and forwarded to Mobile Admin’s Push Notification Cloud. The payload package contains a device token (which device to contact) and a simple message (“new alert”).

Mobile Admin’s Push Notification cloud manages the relationship with the appropriate, trusted and secure messaging service such as Apple’s Push Notification Service or Google Notification Service to ensure the alert warning is pushed to the user’s mobile device for timely secure** notification.

Details of each alert are protected and can only be accessed via the secure connection between the Mobile Admin Client and the Mobile Admin Server. Seamlessly for the user, once they receive a new alert notification from the messaging service, the actual details of the alert are securely sent from their installed Mobile Admin Server.

** BlackBerry BES installations will utilise the BES messaging service directly
Conclusion

With Mobile Admin Dashboard and notification system, administrators are provided with an important new mobile capability. This capability overlays their existing alerting infrastructure and provides them with the ability to receive alerts that are of direct interest to them and centered on issues that are related to their area of responsibility.

Unprecedented Workflow

The Dashboard enriches the Mobile Admin solution by providing an unprecedented workflow for remote IT incident detection and resolution from mobile devices

• Customized alerts ensure IT staff members are notified to the issues relevant to their role and area of responsibility without being distracted or overwhelmed by a barrage of generic notifications

• Alerts are delivered from the Mobile Admin Server to the mobile client, circumventing email or other systems which may be down

• A snapshot of recent events complete with key details is displayed directly on the mobile screen

• Users can drill down directly into the server or service that caused the alert

• Diagnosis and resolution begin immediately

• Upon resolution, incident management tickets may be closed and monitoring system notifications may be cleared