# TEC RENDS



- Vidya Vasu, Head of the ManageEngine Community and Free Tools

Imost 100 million new businesses are launched every year, globally. As of December 2015, India was ranked third in the number of startups and is home to over 4,200 of them, according to a report published by NASSCOM. With the relaxing of the startup regulations, you can expect a spike in technology startups in India.

Some of the typical challenges these startups could face include space, infrastructure, talent, and technology.

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"India ranked third in the number of startups and is home to over 4,200 of them. With mobility influencing the IT landscape, it's important that startups and small businesses are able to manage IT from anywhere." Fortunately, mobile and cloud technologies have transformed the way businesses operate today. Now that employees can work from the comfort of their homes or on the move, startups can eliminate concerns such as space, connectivity, and IT infrastructure. With mobility influencing the IT landscape, it's important that startups and small businesses are able to manage IT from anywhere.

Here are some of the IT challenges most startups face depending on whether their IT infrastructure is on the cloud or on-premise:

- 100% service uptime
- High availability and performance of servers
- Internet connectivity
- Mobility

### **Ensuring 100% service uptime**

Startups and small enterprises rely on the availability of their IT resources for business continuity. The first step in resolving downtime is a basic ping check. Ping lets you instantly determine whether a server is up or down and if there is any packet loss, or if the response time is beyond the acceptable limit.

These metrics help determine the availability of a device or a website. With a mobile ping tool, attending



to an unavailable server or a network is a breeze for the IT admin on the move. The ping tool also allows for first-level troubleshooting by enabling the admins trace route to the websites or servers and perform a reverse lookup to check if the DNS resolves.

## **Ensuring high availability and performance** of servers

The services hosted on the servers often choke up resources and slow down the machines. Sometimes services are unavailable because of insufficient resources. Therefore, IT admins need to closely monitor critical services, even when they are physically away from these services.

In a larger environment, the app allows you to create a list of critical servers to monitor so that you can avoid wading through a huge list of servers. The app automatically detects the services on the system and monitors for availability. You can manage the services and perform operations such as start, stop, or restart a service. The app also lets you shut down or restart a Windows system from wherever you are.

#### **Ensuring optimum Wi-Fi connectivity**

Have you found yourself walking all over a conference

floor or trapped inside a meeting room in search of a good Wi-Fi signal? It happens to the best of us. Both end users and IT admins could use an app that reports on the available Wi-Fi networks and their signal strengths. Wi-Fi admins are often bombarded with emails and calls from employees complaining about poor connectivity. There are many Wi-Fi analyzer apps that besides showing signal strength, provide insight on channel overlaps as well. This insight will allow admins to switch off channels to eliminate interference or deploy additional access points or repeaters to improve the reception.

## **Managing Cloud Infrastructure**

For most startups or small businesses, hosting their services in the cloud is a more viable option than having to set up the required IT infrastructure onpremise. The challenges with in-house hosting include ensuring 100-percent uptime, sufficient bandwidth, infrastructure redundancy, and the ability to allocate or free up unused resources. Many businesses host their services on Amazon EC2 instances. IT admins tasked with monitoring their cloud instances would just need the authentication parameters to be able to access their cloud resources.

The cloud infrastructure management app enables you to monitor the resources on your EC2 instances from anywhere. With increasing enterprise apps, you can connect to Amazon EC2 instances and monitor live feed data, historical data, configured alarms, and EBS volumes. Monitoring the performance metrics on the EC2 instances lets you determine the health and availability of these instances.

#### Troubleshooting SNMP

Startups that have on-premise infrastructure typically deploy one of the several free monitoring solutions to manage health, performance, and security of the deployed IT infrastructure. Most of these servers, applications, and network monitoring applications rely on SNMP (Simple Network Management Protocol) to manage the monitored devices. These solutions will fall back on the native ping to determine the availability and response time of the monitored devices. SNMP, CLI, or WMI will be used to gather the performance metrics of all other resources on the monitored devices.

We are living in a digital world which is majorly driven by smartphones. There are various mobile apps and free IT tools available in the market that will help a start-up get to a next level. These free IT utilities will enable admins with easy on-the-move IT management with the required capabilities.