



## Smart Service Management for Smart Devices

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## 1 Mobility Creates New Challenges

Today, there probably aren't many larger enterprises without their share of staff using „smart“ devices such as smartphones or tablets. Originally, however, these smart devices were designed for the consumer market. This poses a whole new set of challenges for the administrator in the mobile enterprise, especially when it comes to orchestrating IT service management (ITSM) and enterprise mobility management (EMM). The systems administrator needs a far-reaching integration of his ITSM and EMM solutions so as to

be able to provide mobile end users with IT services as fast and as easily as possible. This whitepaper explains how an administrator can enable providers to deliver mobile devices directly to end users while simultaneously taking the devices under management, so that end users can be productive as swiftly as possible; and it discusses how this is even possible with the end users' personal devices (BYOD), and how this facilitates work continuity even after losing one's device.



## 2 New IT Requirements Due to Smart Devices

Smartphones and tablets are great inventions - yet they create significant problems for the IT administrator. Today, even compared to only ten years ago, he has to deal with fundamentally different kinds of end user device, and of end users. And these customers have completely new - and greater - requirements when it comes to support from the service desk.

The modern employee - a manager, a salesman, or a service technician - is mobile: one is hurrying from meeting to meeting, the other from customer to customer, the third from one installation site to the next. For these users, work is not tied to a workplace anymore, but simply to the frictionless operation of a smart device and a high-speed WiFi or cell phone connection. Yet speed isn't only needed when it comes to WiFi or internet uplinks, but also in regard to service management workflows: at any given time, IT must be able to swiftly provide end users with new mobile devices, apps, IT services, as well as access to all required resources.

Basically, this demand is nothing new to the administrator: no end user has ever wanted to waste time waiting for a client device or a software update. What complicates the administrator's work today, however, is the fact that those wildly popular smart devices were originally designed as pure consumer devices: central management by an enterprise IT organisation was not part of the original concept.

The good news: this situation has now eased considerably. Apple, for example, with iOS 6 and even more so with iOS 7, has started to offer numerous features allowing central management of device functionality, apps, and content. With Android 6.0 („Marshmallow“), Google has followed suit, as this version now contains the so-called „Android for work“ environment for secure app usage in an enterprise context. Microsoft, in turn, has included similar enterprise-grade features in the long-awaited Windows 10 Mobile.

However, all three operating systems presuppose that the administrator is using an appropriate management software for centralised control of the smart devices. Luckily, a very lively market for mobile device management solutions has formed; these solutions are no longer relegated to the smart devices alone - instead, they cover installed apps, locally stored content, as well as the access and security mechanisms used for connecting these devices to the corporate network. „Enterprise mobility management“ (EMM) has established itself as the generic term for describing this comprehensive feature set.

The problem for the administrator: given their history, EMM tools are usually pure stand-alone solutions. IT has subsequently added them to their existing client management so as to get a grip on consumer devices. Therefore, most of these EMM tools are completely disconnected from the software suites the administrator uses for client management or IT service management. When it comes to service management processes centred on request fulfilment, client or incident management, this prevents the systems administrator from achieving the agility the end users rightfully expect.

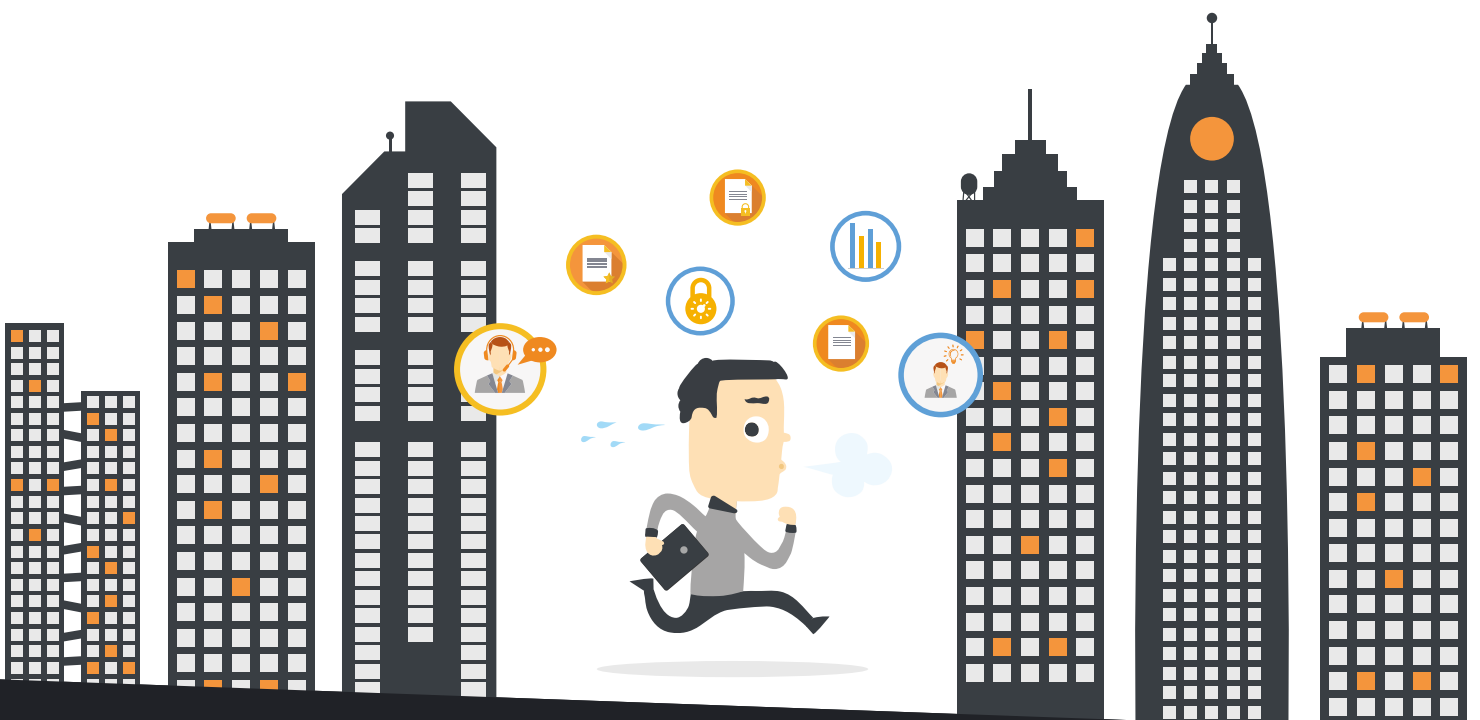
Several factors coalesce to make matters even worse. First of all, mobile device diversification has grown enormously over the last few years: today, one has to deal with notebooks, smartphones, and tablets as well as hybrid devices such as „convertibles“ that can be used as a notebook and/or tablet, or super-sized smartphones, so-called „phablets“ - and the trend continues upwards. Thus, the CEO or board member wants to effortlessly use his iPhone or iPad via corporate WiFi, the „road warrior“ wants his Windows 10 „convertible“ to talk to his Android

smartphone, while the warehouse worker needs a Windows 10 tablet with a barcode scanner - the list just goes on and on.

Secondly, smartphone and tablet development is progressing rapidly, making many end users switch their devices much more frequently than they used to. This has a bearing on the workday at the service desk, especially if the enterprise allows usage of privately-owned devices on its premises („bring your own device“, BYOD): many consumers love to acquire the latest model of their favourite device - and this means yearly changes instead of the multi-year recovery periods customary to the corporate world. Yet, there is an upside for the enterprise as well: employees tend to be very familiar with their privately-owned devices, which makes them more productive at work.

Thirdly, increasing mobility inevitably comes at the price of the users being on the move more frequently, so the service desk has a harder time reaching them in case of an incident. Still, these end users demand that reliable remote support is available at all times.

A fourth and final point: the „consumerisation“ trend (i.e. increasing usage of consumer technology in the enterprise context) has caused a considerable increase in self-service for service requests, e.g. for provisioning apps, as well as for incident management. These days, this is easily done with modern smartphone apps - but how can the service management solution that has been installed for years keep track of this? In many cases, subsequent integration is not feasible. This means that in the mobile enterprise, the administrator has to overcome multiple obstacles to maintain the service quality of his IT organisation.





### 3 Automation Facilitates Mobility Management

All things considered, smart mobile devices cause some disturbance in quite a variety of ITIL processes - from incident, problem, and change management to software asset management, and on to request fulfilment. Thus, what is needed is an automated interplay of service management and mobility management - which today is well within the realm of technical feasibility. Let's therefore introduce an example at this point to illustrate the high level of automation that modern software provides: the onboarding of a mobile employee, i.e. equipping a new colleague with client devices, apps, and IT services. This creates the foundation for later on discussing the prerequisites for this level of process automation.

Once an organisation has hired, for example, a new salesperson, a state-of-the-art client management solution such as Matrix42 Physical makes it easy for the administrator to provide her with a fully pre-configured Windows 10 notebook on day one (for details, see the Matrix 42 whitepaper „From Firefighter to Service Provider“). In addition to her notebook, the new colleague is supposed to receive an iPhone to simplify her everyday tasks. However, provisioning a smartphone is a completely different process to delivering a classic notebook or PC.

Even before the new colleague starts her work, the administrator - along with ordering her notebook - orders a preconfigured iPhone from the company's cell phone provider. On her first work day, she discovers it in her office, as the provider has shipped the device directly to her desk: thanks to modern solutions such as Matrix42 Unified Endpoint Management, which combines Matrix42 Physical with the integrated EMM solution Silverback, there is no need for the end user device to visit the IT department to be added to the managed device pool. The new staff member accesses the enterprise app store in the Matrix42 self-service interface and orders the „Enrolment Service“ provided by the IT organisation for onboarding new employees. Immediately upon

placing that order, she sees that enrolment has started - visualised by a graphical illustration of the approval process in her interface.

Now the administrator receives a message with the Matrix42 Mobile App on his Android smartphone, informing him that the new colleague has requested enrolment. He approves it with a tap of his finger. So now the new colleague just has to insert the SIM card into her iPhone and enter the PIN. Immediately after the initial smartphone boot she receives the administrator's answer: his message containing an automatically generated link for her enrolment.

The employee simply has to tap that link to make the remaining workflow proceed as defined via Workflow Studio: Silverback, the EMM component of the Matrix42 Suite, installs an EMM profile on her iPhone, allowing her device to be managed remotely. She has to confirm this step by tapping the OK button - a relic from the consumer history of the iPhone trying to leave every decision to the end user. The new salesperson can then watch her network access configuration, her e-mail account, as well as her access rights and business apps being automatically delivered to her smartphone.

First and foremost, these business applications include the Matrix42 „Companion App“. It provides for secure authorised access to internet and intranet sites without any further configuration, plus synchronisation of business and private data. The app also offers a personal file manager for drag & drop file handling, Microsoft SharePoint integration, and real-time cost control for data roaming - important to the new sales colleague as she will frequently attend trade shows and events abroad, and of course she doesn't want to needlessly inflate roaming costs.

Simultaneously, the new colleague gets mobile access to the enterprise app store via the „App Portal“. Here she can conveniently select the apps she needs for her everyday work from all the apps she is

authorised for. As the company uses Apple's Volume Purchase Program (VPP) for the enterprise app store, she doesn't have to worry about charges: licensing fees are settled directly with Apple using the enterprise account. She doesn't even have to use her personal Apple ID for installing apps.

By means of a third app, also installed automatically, the new sales colleague can access her new employer's service desk with a tap of her finger. She confirms that the enrolment was completed successfully in the service catalogue under „My Orders“. If she wishes to do so, she can comment on the workflow here - after all she knows that an administrator is always delighted to get positive feedback regarding his work.

For this provisioning workflow, by the way, the new staff member could just as well have used her private smartphone - should her employer allow or even favour this. After all, the centrally controlled automatic enrolment enables implementation of BYOD in the enterprise just as elegantly.

Later on, during the first business trip in her company car, the new colleague will sync the iPhone with the vehicle's on-board computer. She will notice that the administrator has already pushed all the contact details of her sales colleagues to her address book - including remote sites and address details, of course. This way, the vehicle's navigation system will immediately know the way to the branch office she is headed for.

## 4 Quick Damage Control upon Smartphone Loss

As useful and important as fast enrolment is to swiftly making new staff productive: the biggest concern of administrators and end users alike is always how to regain control over a device and the corporate data stored on it in case of mobile device loss or theft. This means: remotely locking and wiping the device without delay. Remote lock and wipe have long been standard features of all EMM solutions - yet emergencies are precisely where an EMM integration with service management can shine.

Here is one more common scenario: having just arrived at the hotel during a business trip, the new colleague notices with a shock that she forgot her iPhone in the taxi. Using her notebook, the hotel WiFi, and the VPN access the administrator has set up for her, she opens the Matrix42 Service Management self-service interface; here she reports the incident „smartphone lost“. The device is automatically locked remotely,

while all locally stored corporate data are wiped. (Had she lost her notebook, she could have reported this loss to the service desk via the Matrix42 Mobile App. This would have initiated, in turn, an immediate remote wipe of her Windows 10 machine.)

After calling the taxi company several times, it turns out that the iPhone cannot be located - obviously a later passenger must have pilfered it. Therefore, the sales colleague orders a replacement device right from her hotel room; upon returning to her office, she sees that the new device has already arrived, allowing her to initiate a new enrolment. Because her corporate data has been backed up automatically, she only has to restore her configuration at the push of a button and transfer her data to the new device to be able to continue her work without delay. This way, she saves valuable working time even in the aftermath of a „worst case“ scenario.





## 5 Integrated Processes Instead of Point Solutions

On the IT side, end-to-end automation of mobile service management processes - as described in the two scenarios above - requires much more than the simple presence of stand-alone point solutions: it presupposes a tightly integrated interplay of service management, EMM, as well as license and asset management solutions.

For automated enrolment, request fulfilment has to be an integral part of the EMM app, while mobile device management, in turn, acts as the long arm of the service desk: for an integrated mapping of ITIL processes, the EMM solution needs to have bidirectional access to service management, so as to exchange up-to-date information with the back-end systems.

Meanwhile, the enterprise app store needs to be just as tightly integrated with license management. Otherwise, given the dynamics generated by the presence of self-service workflows, any overview of assets, their configuration, and license compliance would be lost. This requires automated information synchronisation to be as far-reaching as possible - from the SIM card and cell phone number to the hardware ID of the mobile device, and on to the current status of apps installed on, or deinstalled from, the mobile device.

In addition, client management and EMM have to interoperate tightly with the service desk: after all, not every service request or incident can be fulfilled or solved, respectively, via self-service. This means that first-level support needs full and complete access to all relevant data. This allows the staff to initiate the tasks at hand directly from the service desk interface, and to hand them off to client or mobility management tools, depending on the

device type. Roughly the same goes for second-level support and problem management: without reliable near real-time data exchange, everything will take twice or thrice as long. And only with integrated and complete access to client management and EMM can problems be solved without aggravating delays.

A deep integration of service management, client management, and EMM creates numerous advantages - for the end user, the administrator, and his service desk colleagues alike, especially for those in first-level support: end users are able to initiate manifold workflows in a self-service way, just as they do in their private lives. This takes a multitude of cumbersome routine tasks off the shoulders of first-level support staff - think „password reset“. Simultaneously, the number of time-consuming (and often unnecessary) inquiries drops, as end users can look up the status of their trouble tickets and service requests at any time.

Moreover, the administrator and his team profit from completing their remaining work faster - mostly thanks to a reduced number and decreased variety of interfaces. There is no need for the administrator to look up cell phone subscriptions in a folder anymore, nor to find SIM card numbers in Excel sheets while opening various interfaces to manage Windows clients, mobile devices, and software licenses. Instead, via the integration of service management, client management, and EMM, he always has all the relevant data at his fingertips - and he only needs to deal with a single interface to initiate workflows for any kind of end user device. This is an important advantage at a time when Microsoft's Windows 10 is increasingly blurring the boundary between classic client management and enterprise mobility management.

In addition, problems constantly arising from inconsistencies in the data repositories of various tools are now a thing of the past. Thus, all in all, the integration and automation of service management and EMM accelerates numerous processes at the service desk. This makes for shorter ticket resolution times, better service quality, and ultimately continual service improvement - as well as reduced stress for both the service desk and the end user.

An extremely important point in all this: the processes and workflows enabling this high degree of automation need to be customisable at any time in a speedy,

simple, and user-friendly manner. For today's workflows, such as approval or escalation routines, can change just as quickly as the types of smart end user devices that need to be centrally managed. Therefore, an essential criterion for any ITSM solution is a powerful, flexible workflow engine. This engine has to seamlessly interoperate with a graphical interface for customising workflows, self-service interfaces, and forms for all kinds of processes, from incident management to request fulfilment. These customisations have to be possible via configuration alone, i.e. without any coding. In the long run, this is the only way to guarantee the service management solution's updatability.

## 6 Smart Devices Require an Interplay of ITSM and EMM

The mobile enterprise needs a service management environment that is prepared for the considerably tougher requirements of mobile end users. The service management solution has to be geared for the increasing time pressure prevalent in today's IT administration; at the same time, it has to be able to handle the increasing complexity and variety of client types, as well as the fact that mobile end users are harder to reach. In order to continue delivering high service quality to his customers, the administrator needs a high degree of process automation, and a tight integration of service management, client management, enterprise mobility management, software asset management, and license management.

End user-friendly self-service is a must to accommodate today's smartphone user habits, as well as

the service desk staff's tight schedule. A flexible Workflow Studio and a graphical workflow and interface editor have to enable customisation of all the existing processes and workflows purely through configuration, and thus without coding. This doesn't only make the service desk more productive: it also enables mobile users to be ready to work more quickly, be it upon onboarding, changes, incidents, or even the dreaded loss of a mobile device. Ergo, they are more satisfied with the enterprise IT organisation.

Ultimately, it is exactly this satisfaction that really counts for the administrator in the modern mobile enterprise. The fact that end-to-end process automation also helps to reduce cost of managing smart end user devices is a pleasant side effect.



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# Matrix42 AG

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Matrix42 operates successfully in seven countries – Germany, Austria, Switzerland, the Netherlands, the United Kingdom, Australia and the United States of America. The company's headquarters are in Frankfurt am Main, Germany.

Matrix42's products and solutions are designed to manage modern work environments simply and efficiently – across physical, virtual, and mobile workspaces.

Matrix42 focuses on user orientation, automation, and process optimization. The company's solutions meet the requirements of modern employees who want to work from any location using a wide range of devices, while also addressing the needs of IT departments and businesses.

Matrix42 offers its solutions to organizations across different sectors who value forward-looking and efficient workspace management. The company also successfully collaborates with partners who provide on-site consultation to Matrix42 customers. Some of these leading partners include TAP.DE Solutions GmbH, Consulting4IT GmbH, and DSP IT Service GmbH.

For further information, visit: [www.matrix42.com](http://www.matrix42.com)

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## MATRIX42

### HEADQUARTER GERMANY

Elbinger Straße 7  
60487 Frankfurt am Main  
Germany

Phone: +49 6102 816 0  
Fax: +49 6102 816 100  
E-Mail: [info@matrix42.com](mailto:info@matrix42.com)

[www.matrix42.com](http://www.matrix42.com)

### SWITZERLAND OFFICE

Poststrasse 30  
6300 Zug  
Switzerland

Phone: +41 41 720 42 20  
Fax: +41 41 720 42 22  
E-Mail: [info@matrix42.ch](mailto:info@matrix42.ch)

[www.matrix42.ch](http://www.matrix42.ch)

### UK OFFICE

88 Wood St  
London, EC 2V 7RS  
United Kingdom

Phone: +44 208 528 1065  
E-Mail: [info\\_uk@matrix42.com](mailto:info_uk@matrix42.com)

[www.matrix42.com](http://www.matrix42.com)

### AUSTRALIA OFFICE

Level 6, 55 Clarence St  
Sydney NSW 2000  
Australia

Phone: +61 2 8484 0355  
E-Mail: [info\\_au@matrix42.com](mailto:info_au@matrix42.com)

[www.matrix42.com.au](http://www.matrix42.com.au)

