

What's New
in Android Pie?

android

Core themes for Android Pie

Managed Devices

Work Profile
Fully managed devices
Device provisioning

Dedicated Devices

Shared use devices
Kiosk & rugged devices
Lock task mode

Security

Keystore
Encryption & device integrity

What's new in Managed Devices

android

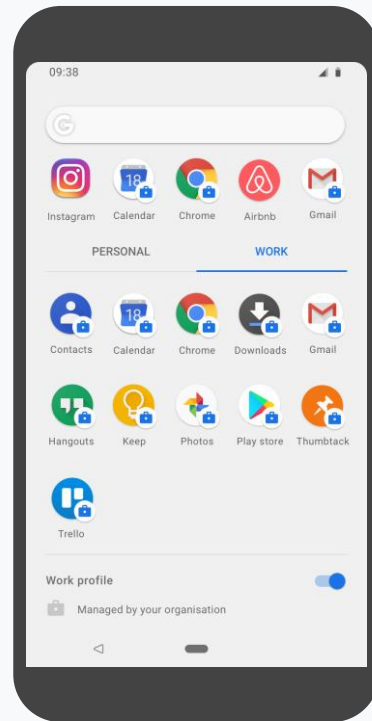
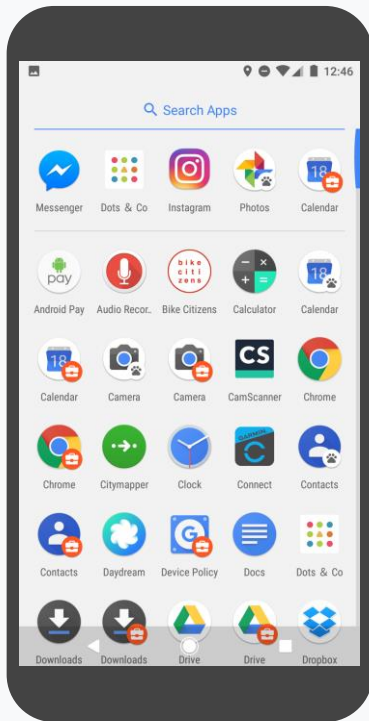
Work profile user experience

Current experience

Apps mixed together

Hard to parse duplicate apps

Disconnected from Android system UI



Android Pie improvements

Apps separated into work and personal tabs

Clear and labelled segregation of managed & non-managed spaces

Feels integrated into Android system UI

Turn off work toggle easily discoverable

User education

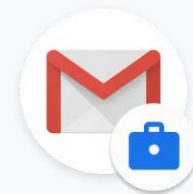
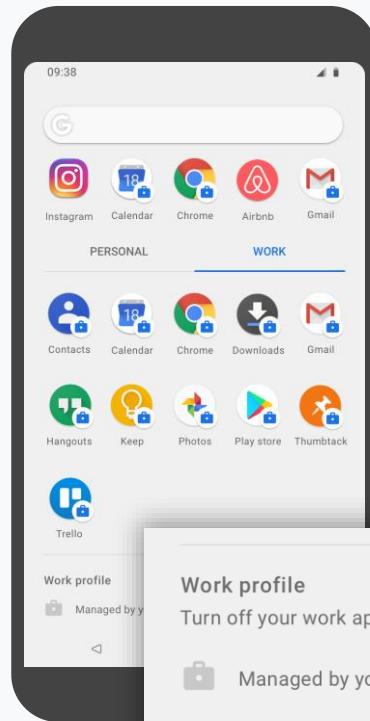
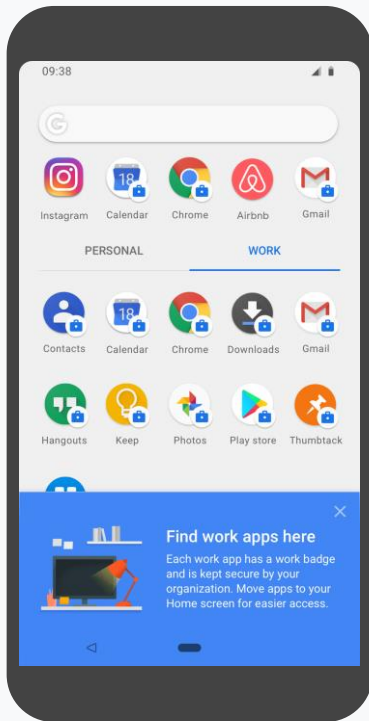
Updated elements

Improved user education upon profile creation

Updated badge UI to match Material Design and Android system updates

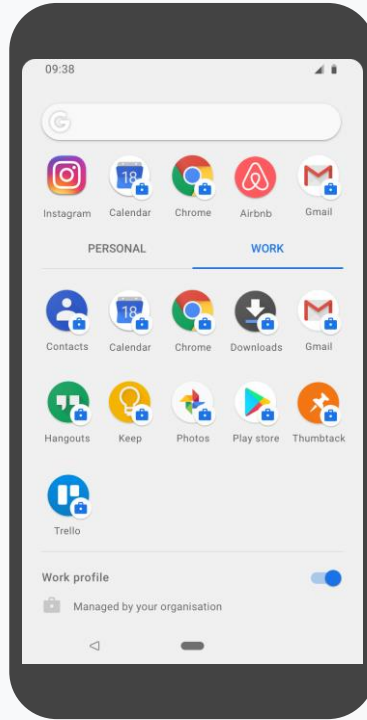
Ability to toggle off the work profile brought directly into the work tab

Work profile clearly labelled as managed



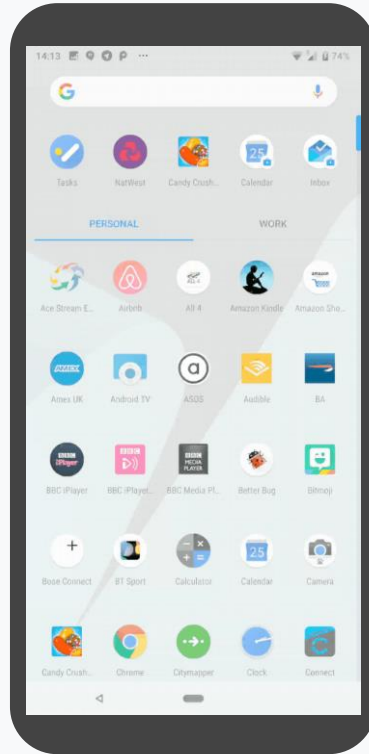
Gmail

Turn Off work profile programmatically



EMMs can set
policy to turn the
work profile on or
off at set times or
on demand

Simple profile
switching



Simplified switching
between the
personal and work
version
of the same app

android

What's new in Dedicated Devices

android

In Android Pie, we focused on 3 dedicated device needs



Provisioning
thousands
of devices
at scale

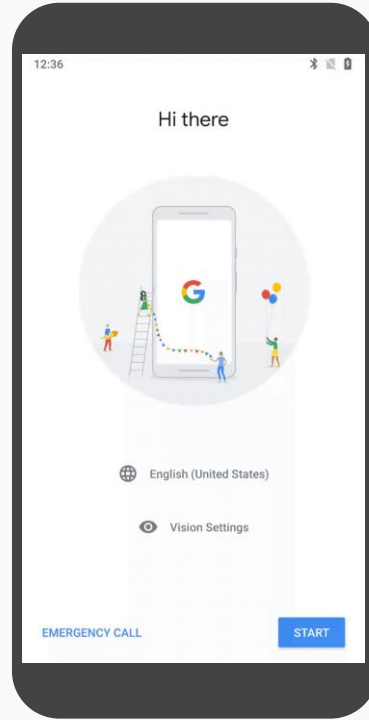


Locking devices
Into a consistent
experience when
shared



Enabling proper
login concepts
for shared use
devices

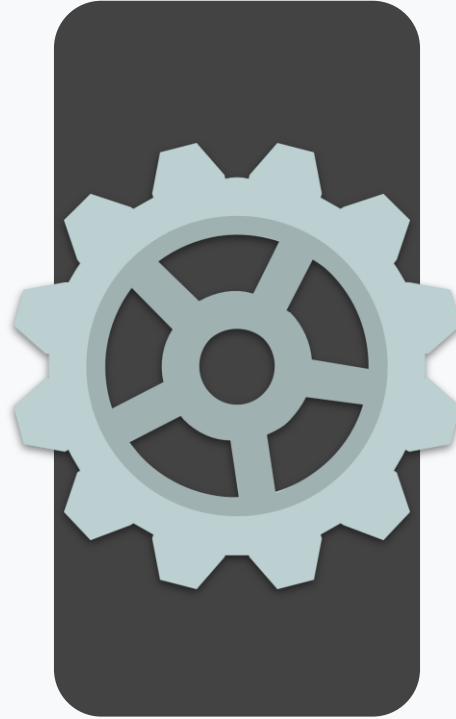
Seamless
QR provisioning



Bundled QR reader
and support for WiFi
configurations

android

Expanded
configuration



Support for APN
provisioning
and control
of more settings
(e.g. timezone,
airplane mode)

android

New Policy Settings in Android Pie

Prevent changes to date, time, & timezone

Set timezone & time (Device Owner only)

Block use of airplane mode

Prevent apps from using metered data

Prevent changes to location providers

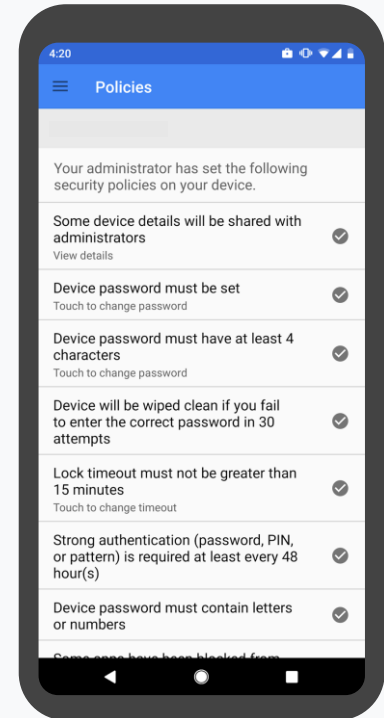
Disable ambient display for notifications

Prevent changes to brightness

Set freeze periods to postpone pending OTA firmware updates

Prevent changes to screen timeout

Disable printing (at framework level)



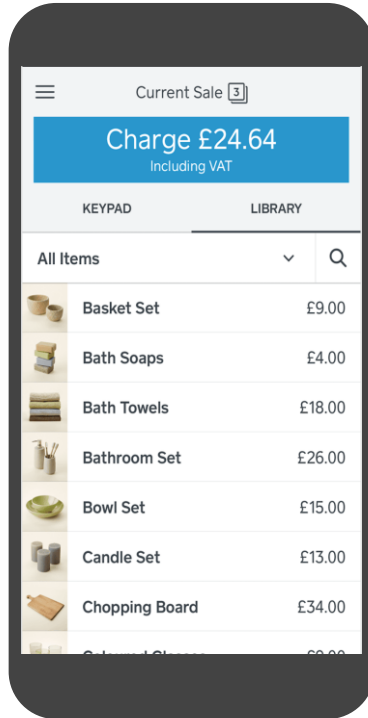
Locking a device to multiple apps

Current experience

“LockTask” mode supports only a single app

App developer must declare support for lock-task mode

Partners must develop custom launcher



Android Pie improvements

LockTask can support multiple apps with an included launcher

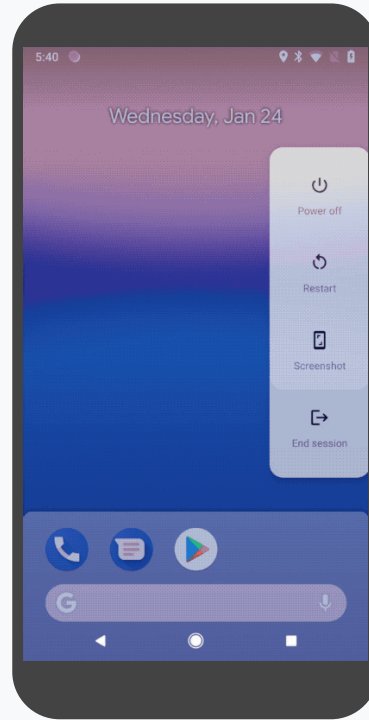
Any app can be put into lock-task mode

Greater UI flexibility with options to show or hide status bar icons, power menu, home, recents and notifications

Shared devices

Public sessions - user data erased at the end of every session (i.e. kiosks)

Shift worker devices - multiple employees share devices, with data preserved between sessions but fully separated at all times.



Postpone OTA updates

Postpone platform updates for up to 90 days (e.g. holidays)

Mandatory 60 day cooling-off after postpone period



What's new in Android 9 security

Key security enhancements

Separate work challenge

Admins can require different PINs and timeouts for personal and work profiles

Data leakage improvements

Prevent the sharing of data across work & personal profiles
- including via adb



Verified device access

New APIs to work with keys and certificates used to securely identify devices

Security & network logging

Unique IDs for network and security events.
Expanded coverage of security-related actions.

...and more! goo.gl/nh5bpM

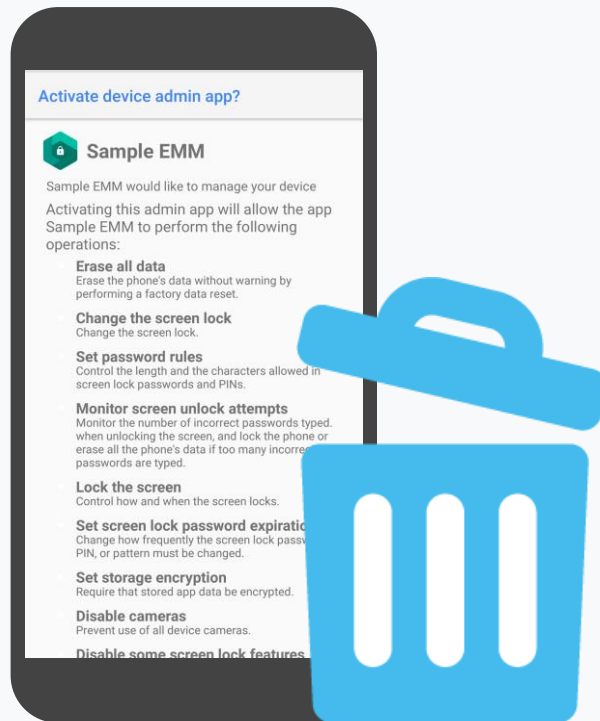
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Device Admin deprecation

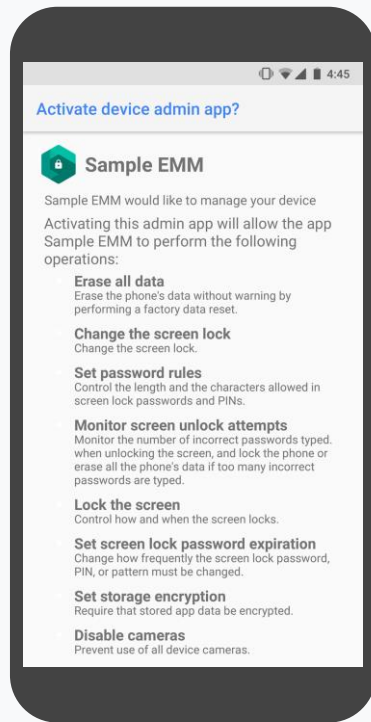
Announced in December 2017

APIs marked as
deprecated in P

Will be removed
entirely in following release



Device admin: Why is it going away for Enterprise?



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Rudimentary local
administration

Outdated security
model

Malware abuse

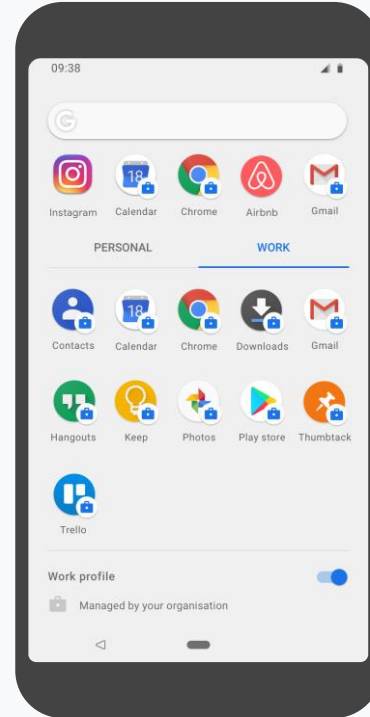
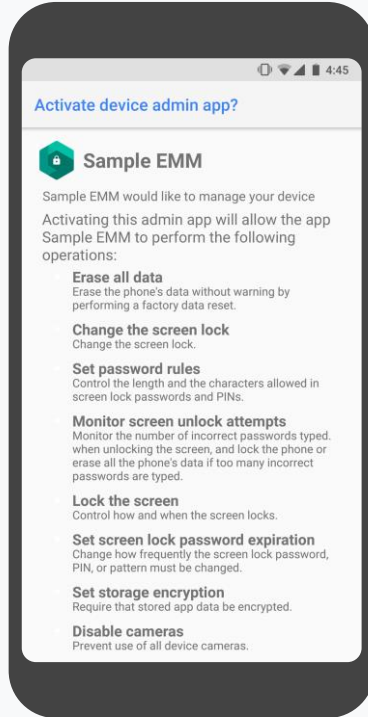
OEM API challenges

DA vs AE Enrollment

Device Admin

Manual Download,
Sideloaded
(unsafe)

Barcode
(on some OEMs)



Android Enterprise

Zero-touch (8.0+)

QR Code (7.0)

NFC (6.0)

DPC Identifier (6.0)

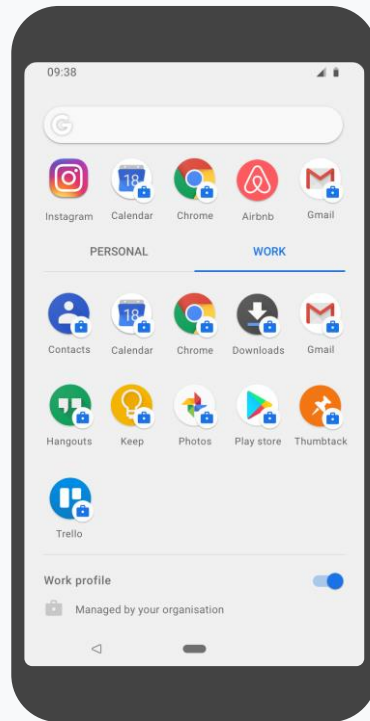
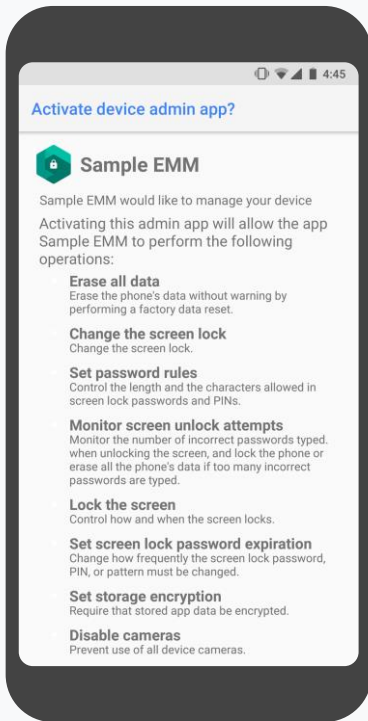
DA vs AE Applications

Device Admin

No Google Play integration

App Wrapping

Unknown Sources



Android Enterprise

Google Play is most reliable and robust app delivery service

Silent installs through managed Google Play

Private app publishing

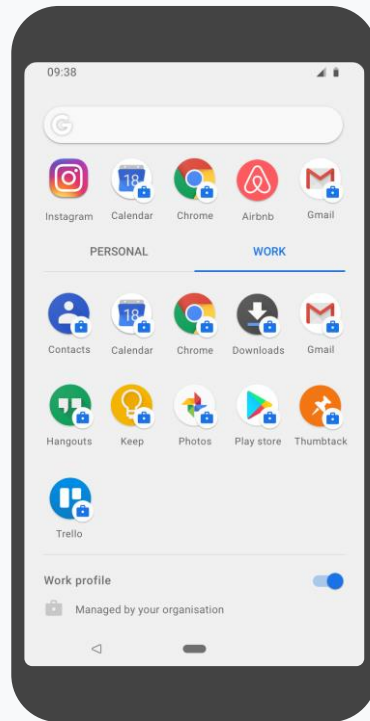
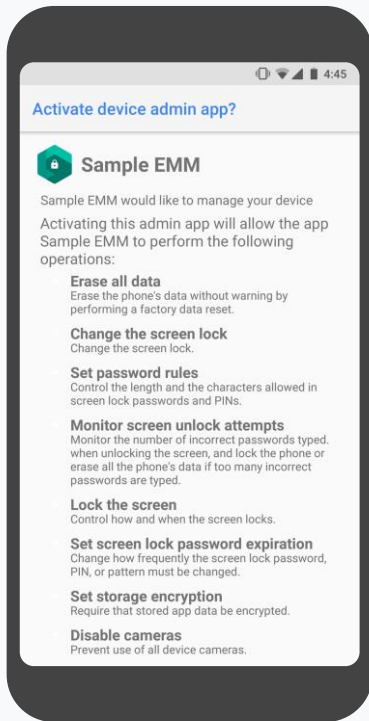
Alpha/Beta publishing

Managed App Config

DA vs AE Flexibility

Device Admin

“One Size Fits All”
rigid management



Android Enterprise

Flexible Range
of Management
options:

- Managed Profile
- Managed Device
- Managed Device w/
Managed Profile

DA vs AE

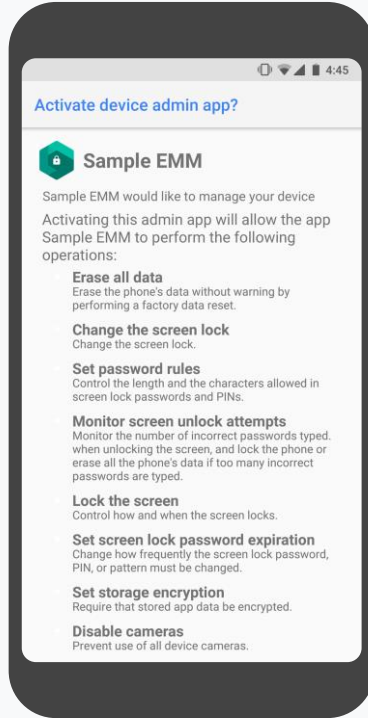
Device Management

Device Admin

Limited Device Controls

OEM API Reliance

Battery Intensive

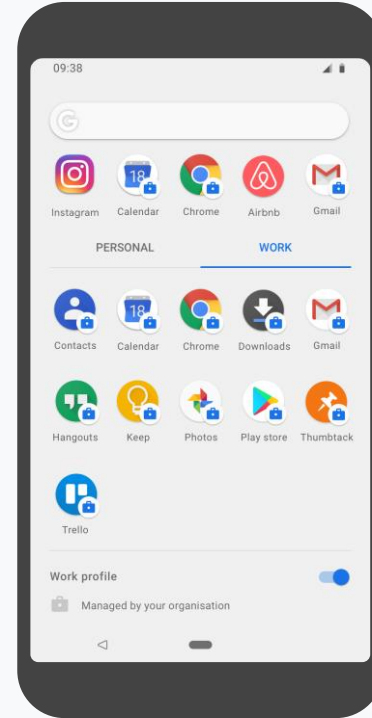


Android Enterprise

Extensive Controls

Consistent across all OEMs

Native



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Device Admin

Android Enterprise + Device Admin

Android Enterprise Only



Pre-Lollipop

2.3.3 - 4.4

DA policy built for rudimentary local admin tasks



Lollipop

5.0 - 5.1

Support for work profile



Marshmallow

6.0

Support for fully managed device



Nougat

7.0 - 7.1

Improvements for work profiles & fully managed devices



Oreo

8.0 - 8.1

New device-wide policies & support for personally enabled work devices



Pie

9

Advanced policies, enhanced security, & UX polish
DA API warnings



Next release

AE continued support & dedicated device use cases
Remove enterprise DA API support

Conclusion

Lots of great features in Android Pie



**Managed
Devices**



**Dedicated
Devices**



Security

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