

# THE BENEFITS OF UPGRADING IGEL OS

GEL. YOUR PLATFORM TO THE CLOUD AND BEYOND.

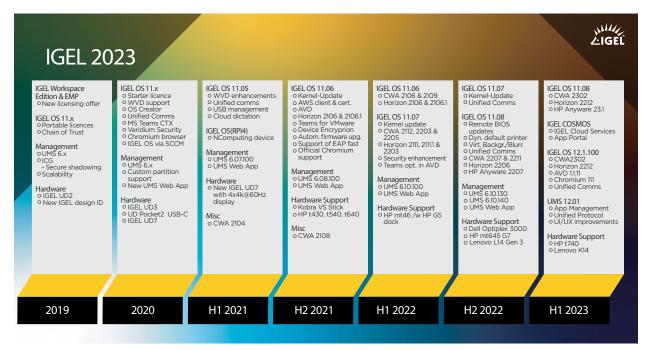
### **TABLE OF CONTENTS**

THE BENEFITS OF UPGRADING IGEL SOFTWARE TO THE LATEST VERSION.	3
ENDPOINT OS: IGEL OS	4
2019: IGEL OS 11 - Offer restructuring - separating software from hardware	4
Q1 2020: Feature development for WVD and trial/demo licensing	
Q2 2020: First Linux OS verified with Microsoft WVD	
Q3 2020: IGEL OS 11.04 with support for Teams, Zoom, and others	
Q4 2020: IGEL OS 11.04.200 with further enhanced unified communications support	6
Q1 2021: IGEL OS 11.05 with focus on Microsoft WVD enhancements, USB management, and dictation	6
Q3 2021: IGEL OS 11.06 with focus on AVD enhancements and new features	7
Q4 2021: IGEL OS 11.06 with focus on Chromium and client updates	8
Q1 2022: IGEL OS 11.07 with focus on browser updates and security enhancements	8
Q2 2022: IGEL OS 11.07.110 with support for Teams optimization in AVD	9
Q2 2022: IGEL OS 11.07.140 with focus on browser updates	9
Q2 2022: IGEL OS 11.07.170 with focus on browser updates	10
Q3 2022: IGEL OS 11.07.190 with browser updates	10
Q3 2022: IGEL OS 11.08.100 with new features	
Q4 2022: IGEL OS 11.08.200 with new features and updates.	
Q4 2022: IGEL OS 11.08.230 with updates and hardware support	
Q1 2023: IGEL OS 11.08.290 with hardware support and client-updates.	
H1 2023: IGEL OS 12 and COSMOS - THE EVOLUTION OF THE ULTIMATE ENDPOINT OS FOR VIRTUAL DES	SK-
TOPS	
H1 2023: IGEL OS 12 - Offer restructuring - separating apps from the base endpoint OS - IGEL COSMOS	13
ENDPOINT OS: IGEL OS(RPI4)	14
Q1 2021: IGEL OS(RPI4) enters the Arm market on the NComputing RX420(IGEL) device	
Q4 2022: IGEL OS(RPI4) with updates and additions	
MANAGEMENT AND CONTROL: UNIVERSAL MANAGEMENT SYSTEM (UMS) AND IGEL CLOUD GATEWAY (ICG)	
2019: UMS 6.0 - Offer restructuring - separating software from hardware	
Q1 2020: UMS 6.04 – More security features and greater usability	
Q2 2020: UMS 6.04.120 - Easier migration of Windows endpoints to IGEL OS	
Q3 2020: UMS 6.05 - A new UMS Web App and IGEL Cloud Gateway (ICG) improvements	
Q4 2020: UMS 6.06 - Certificate management, ICG, and UMS Web App improvements	
Q1 2021: UMS 6.07 – New system information, improved HA installation, new features for UMS Web App	
Q2 2021: UMS 6.08 - Enhanced Expert Mode, enhanced admin tasks, new features for the UMS Web App	
Q4/2021: UMS 6.09.100 - Support for Microsoft Windows Server 2022, UI and security improvements	
Q1/2022: UMS 6.10.100 - New Features and improvements for UMS console and UMS Web App	
Q1/2022: UMS 6.10.110, UMS 6.10.120 - New Features and improvements for UMS	
Q4/2022: UMS 6.10.130 - New Features and Improvements for OMS	
Q2/2023: UMS 12	
UMS 12.01	
ICG 12.01.100	
100 12.01.100	15
HARDWARE: IGEL ENDPOINT DEVICES AND IGEL UD POCKET	
2019: IGEL OS 11 - Offer restructuring - separating software from hardware	
Q1 2020: IGEL UD7 (model H850C) Endpoint Added Security	
Q2 2020: New IGEL UD3 and Enhanced Connectivity to IGEL UD7	
Q3 2020: Added security for the IGEL UD3	
Q4 2020: The new UD Pocket2 Launch	
Q1 2021: New IGEL UD7 (model H860C) high-performance endpoint launch	21
HARDWARE: SUPPORTED DEVICES PURSUANT TO IGEL READY ADVANCED LEVEL	22
Q4 2020: Lenovo becomes advanced partner for IGEL Ready	
Q1 2021: LG enters the IGEL Ready program	
Q3 2021: HP becomes advanced partner for IGEL Ready	

### THE BENEFITS OF UPGRADING IGEL SOFTWARE TO THE LATEST VERSION

IGEL offers a secure endpoint platform for accessing any cloud-delivered digital workspace. It is the ultimate endpoint OS for virtual apps and desktops, and is a hardware-agnostic endpoint operating system software that is continually enhanced with new features and capabilities. The importance of security, cloud adoption, and the evolution of SaaS-based applications are driving influences in the ongoing development and evolution of the product, especially IGEL's latest offering, the IGEL COSMOS secure end user computing platform that consists of IGEL OS 12, UMS 12, and complementary cloud services that enhance the user experience for both IT staff and end-users.

IGEL's constant innovation is best illustrated by the recent history of product releases:



Looking at the sequence of past major software releases, it is easy to see how each major IGEL component offering has been continually improved. Let's look at how upgrading to each release has brought unique benefits to IGEL customers, and how our plans with IGEL COSMOS will continue to bring even more innovation and benefits to the IGEL customer community. We will look at these different releases from the perspective of how IGEL's products are offered in the following areas:

- Endpoint OS: IGEL OS
- Management and control: Universal Management Suite (UMS) and IGEL Cloud Gateway (ICG)
- Ongoing partner innovations and endpoint hardware compatibilities

### **ENDPOINT OS: IGEL OS**

### 2019: IGEL OS 11 - Offer restructuring - separating software from hardware

IGEL OS 11 introduced a new product structure where IGEL OS and the Universal Management Suite (UMS) software were separated and sold independently of IGEL hardware endpoint devices. In addition, IGEL created two new multi-function product offers – Workspace Edition, which included all essential features for a simple, smart, and secure endpoint operating system and management software, and Enterprise Management Pack, which included several extensions to the UMS software.

IGEL Workspace Edition was released to include the following key features:

- IGEL OS
- UMS
- Optional high availability for UMS by adding a second UMS server
- IGEL Management Interface (IMI) REST API
- Multimedia Codec Pack (MMCP) for outstanding audio-video quality

### Q1 2020: Feature development for WVD and trial/demo licensing

While there was no specific IGEL OS release during Q1 of 2020, IGEL development worked on multiple key technologies to set the foundation for upcoming releases starting in Q2, including:

- Feature development for IGEL OS Linux client integration and verification with Microsoft Windows Virtual Desktop (WVD) services
- Technology to make it easy to replace Windows on endpoint devices across an entire enterprise with IGEL OS
- Technology that makes it easier for organizations to demo and trial IGEL OS for future consideration

### Q2 2020: First Linux OS verified with Microsoft WVD

IGEL OS 11.03.500 was the first Linux-based endpoint operating system validated and verified by Microsoft for use with Windows Virtual Desktop (WVD) services. This release also included two other primary enhancements:

- New licensing: The Custom Partition feature moved into IGEL Workspace Edition, giving customers greater flexibility in supporting new interfaces, software, and peripherals as part of the base IGEL OS and UMS software offering
- Starter license to support, simplify, and accelerate the rollout of IGEL endpoints. For
  within rollouts in completely new IGEL environments but also additional endpoints within
  existing networks.
- Support of Microsoft WVD client

### Client updates:

- Citrix Workspace App 1912
- VMware Horizon Client 5.3.0
- ThinLinc 4.11

- Firefox 68.5.0 ESR
- Cisco JVDI Client 12.7.1

### Product & driver & product updates:

- · LoginPl 4.0
- Crossmatch DP driver
- Gemalto/Safenet 10.7.7
- Athena IDProtect 7

### Q3 2020: IGEL OS 11.04 with support for Teams, Zoom, and others

### IGEL OS 11.04.100 Key Features:

- Unified Communications as a basis for successful Work-from-home or remote work scenarios. Support for
  - Citrix WebEx
  - > Citrix Teams
  - Microsoft Teams
  - > Zoom
  - > Poly devices
  - > EPOS (formerly Sennheiser) devices

### New features:

- · Notifications:
  - Autostart: A notification to endusers the IT admin is able to configure. The notification is interactive, the user can immediately cancel or start a process
  - Out of memory: Informs a user if a process on his device gets killed if the memory reaches a critical state. E.g., if there is 2% memory left and too many tabs are open in a browser session.
- Partition selection: IT admins can reduce the size of the image if IGEL OS has to run on a device with just 2 GB of storage
- Browser-based appliance mode: a substitute for the former XenDesktop Appliance Mode

### New partner solutions

- Ericom Shield: Tool for browser isolation
- ControlUp: Monitoring, troubleshooting, analytics
- Imprivata fast user switching: improvement for single sign-on
- DeskMate: Cloud desktops
- Chromium browser: experimental (unsupported) additional browser feature

### Architecture:

- Ubuntu 18.04 bionic
- Kernel update to 5.4
- · Client updates:
- Citrix Workspace App 2006
- VMware Horizon Client 5.4.1
- Windows Virtual Desktop, added functions
  - > AAX audio output
  - > Proxy support

- > Support for High DPI scaling
- > Session Autostart when only one session is available
- A second set of username/password in case Gateway user and Machine Login user are not the same
- Alphabetical sorting of workspaces
- Parallels client
- Firefox 68.10 extended support release (ESR)
- Teradici PCoIP Ultra client
- NoMachine NX client
- PrinterLogic printer-installer client
- ThinLinc 4.12 client
- Cisco JVDI Client 12.9.0

### Product and driver updates:

- Ericom PowerTerm
- · Philips Speech driver
- Grundig dictation
- · Signotec signature driver

### Hardware support:

• Apple MacBooks 2019

### Q4 2020: IGEL OS 11.04.200 with further enhanced unified communications support

### **IGEL OS 11.04.200:**

New partner solution:

EPOS Connect: Remote Management of EPOS Headsets

# Q1 2021: IGEL OS 11.05 with focus on Microsoft WVD enhancements, USB management, and dictation

### IGEL OS 11.05.100 Key Features:

- Enhancement of Microsoft WVD partner solutions and features
  - > ThinPrint ezeep: Printer solution for usage within WVD
  - > Support of Zoom VDI
  - > FabulaTech: webcam-, scanner and USB-redirection

### New features:

- Added login options for WVD:
  - > Prompt for password upon session host connection
  - > Prompt for username and password upon host connection
  - > Username starts with "@", Domain name is taken as a preset domain name
  - > Allows to preset the domain

### New partner solutions

- DriveLock Extension: Local DriveLock Agent for local USB management
- Speech Write: Cloud solution for Dictation

### Architecture:

Kernel update to 5.9.16

### Client updates:

- Citrix Workspace App 2012
- VMware Horizon Client 2012
- Evidian 1.5.7617
- Teradici PCoIP Client 20.10.0
- Firefox 78.6.1
- A.E.T. SafeSign 3.6.0.0
- Secmaker Net iD to 6.8.3
- Cisco Webex Teams VDI 41.1.0.17621
- Cisco Webex Meetings VDI 41.2.0.142
- Cisco JVDI 12.9.3 Client
- Crossmatch 0125
- Zoom VDI 5.4.59459

### Hardware support:

- Dell 5470
- Lenovo Touch Screen TIO22Gen3Touch
- Phillips SpeechOne (PSM6000) & SpeechMike Premium Air (SMP4000)

### Q3 2021: IGEL OS 11.06 with focus on AVD enhancements and new features

### IGEL OS 11.06.100 Key Features:

- Enhancement of partner solutions and features
  - > AWS: Support of DeviceTrust
  - > AVD: Support of Windows 365 Cloud PC, DeviceTrust & Lakeside SysTrack

### New partner solutions

- Systancia Workplace 6.0.0.-4
- · Conky system monitor solution

### New features:

- Automatic firmware update
- Automatic Switch LAN / WIFI
- PreBoot Authentication

### Architecture:

Kernel update to 5.12.19

### Client updates:

- Citrix Workspace App 2106
- VMware Horizon Client 2106
- Evidian 1.5.7789
- Teradici PCoIP Client 21.13
- Parallels Client 18.1
- ThinLinc 4.12.1

- Firefox 78.12
- Chromium browser 91
- IBM iAccess Client Solutions 1.1.8.6
- IGEL RDP Client 22.2igel1622215185
- NX Client 7.1.3-1igel9
- Open VPN 2.5.1-3igel1621236751
- Zulu JRE 8.54.0.21
- Cisco Webex Teams VDI 41.6.1.1987
- Cisco Webex Meetings VDI 41.6.2.2
- Cisco JVDI 14.01 Client
- Zoom VDI 5.512716

### Hardware support:

- Kobra VS Stick
- HP t430, t540, and t640 thin clients

### Q4 2021: IGEL OS 11.06 with focus on Chromium and client updates

### IGEL OS 11.06.210 Key Features:

- Chromium update to latest version 95
  - Support for HW accelerated video decoding

### Client updates:

- Citrix Workspace App 2109
- VMware Horizon Client 2106.1
- Ericom PowerTerm LTC update 14.0.1\_6226
- ThinLinc 4.13.0-2172
- Cisco JVDI Client 14.0.2
- Cisco Webex Meetings 41.10.1.18/ 41.8.4.11/ 41.6.7.16
- Zoom Media Plugin 5.8.0.36438 / 5.7.6.20822 / 5.5.8.20606
- IGEL AVD Client 1.0.32igel1635162457
- Firefox Browser 91.3.0
- Parallels Client 18.2.0
- Olympus driver for dictation 4.0.1

### Q1 2022: IGEL OS 11.07 with focus on browser updates and security enhancements

### IGEL OS 11.07.100 Key Features:

- Browser updates
  - > Chromium update to latest version 99
  - > Firefox update to latest version 91
- Security enhancements
  - > Polkit Escalation of Privilege
  - > Dirty Pipe Escalation of Privilege
  - Netfilter Escalation of Privilege

### Architecture:

Kernel update to 5.15 LTS

### Client updates:

- Citrix Workspace App 2112
- VMware Horizon Client 2111
- cryptovision 8.0
- NX Client 8.6.2
- FabulaTech USB for Remote 3.8.0
- Stratusphere UX 6.6.0-3
- Signotec Virtual Channel 8.0.10
- Philips Speech G13.1
- ThinPrint 7.6.126
- Zoom VDI Plugin 5.9.0
- Cisco JVDI
- Cisco WebEx Plugins
- · OpenSC sustainability verification

### Hardware support:

- HP mt46 mobile thin client with HP G5 USB-C docking station
- Lenovo IOBOX dock (with Think Centre M75)
- Lenovo Type 40AF dock (with Lenovo L14)
- HP G5 dock

### Q2 2022: IGEL OS 11.07.110 with support for Teams optimization in AVD

### IGEL OS 11.07.110 Key Features:

• Teams Optimization in AVD

### Client Updates

- Citrix Workspace App 2203
- VMware Horizon Client 2111.1 (includes fix for keystroke issue)
- Chromium update to latest version 100
- Zoom VDI Plugin 5.9.6
- Cisco JVDI 14.1

### Q2 2022: IGEL OS 11.07.140 with focus on browser updates

### **IGEL OS 11.07.140 Key Features:**

- Browser updates
  - > Chromium update to latest version 101
  - > Firefox update to latest version 91.9.0 ESR

### New features:

· Parallel usage of smartcard middleware

### **Client Updates**

- VMware Horizon Client 2203
- ThinLinc 4.14.0
- Teradici PCoIP Ultra Client 2204
- Zoom VDI plugin 5.10
- Cisco JVDI 14.1

### Q2 2022: IGEL OS 11.07.170 with focus on browser updates

### IGEL OS 11.07.170 Key Features:

- Browser updates
  - Chromium update to latest version 102
  - > Firefox update to latest version 91.9.1

### **Client Updates**

- Citrix Workspace App 2205
- JVDI 14.1.1
- WebEx Meetings VDI 42.5

### Q3 2022: IGEL OS 11.07.190 with browser updates

### IGEL OS 11.07.910 Key Features:

- Browser updates
  - > Chromium update to latest version 104
  - > Firefox update to latest version 91.9

### Architecture:

• Kernel update to 5.17.15

### Client Updates:

- WebEx App VDI 42.4
- Zoom VDI 5.10.6

### Q3 2022: IGEL OS 11.08.100 with new features

- New features:
  - > Support parallel usage of multiple smartcard middlewares
  - > Remote BIOS updates via UMS

### Browser updates:

- · Chromium update to version 104
- Firefox update to version 91.9

### Client Updates:

- WebEx App VDI 42.6
- Zoom VDI 5.10.6

### Periperal support:

• Cherry eHealth Terminal ST-1506

### Q4 2022: IGEL OS 11.08.200 with new features and updates

### IGEL OS 11.08.200 Key Features:

- New features
  - > Virtual background/blurring
  - > Dynamic default printer

### Browser updates

- Chromium update to latest version 105
- Firefox update to latest version 91.13

### Architecture:

Kernel update to 5.17

### **Client Updates**

- Citrix Workspace App 2207
  - > Support of e911 within Teams
- VMware Horizon 2206
- HP Anyware PCoIP 2207
- AVD client 1.0.99.26
- deviceTRUST Client extension 21.1.300
- EPOS Connect 7.2.0
- HPILP Printer 3.22.6
- AppliDis 6.1.4.17
- Ericom PowerTerm 14.0.3
- FabulaTech Scanner for Remote 3.0.1.0
- Thales / SafeNet 10.8.1013

### **Unified Communications**

- Zoom VDI 5.11.2
- Cisco JVDI 14.1.2
- Cisco WebEx VDI 42.8
- Cisco WebEx Meetings VDI 42.2.10.17

### Hardware support

• Dell Optiplex 3000 TC

### Q4 2022: IGEL OS 11.08.230 with updates and hardware support

### IGEL OS 11.08.280 Key Features:

### Browser updates

Chromium update to latest version 108

### Client updates:

- Citrix Workspace App 2211
- IGEL AVD Clienbt with background blurring and virtual backgrounds for MS Teams
- Secmaker / Pointsharp Net iD Enterprise 6.8.5

- DeviceTrust: support for VMware Horizon
- Parallels Client 19.1

### **Unified Communications:**

- Zoom VDI plugin 5.12.1
- Cisco WebEx VDI plugin 42.10

### Hardware support

- HP Elite mt645 G7 Mobile Thin Client
- Lenovo ThinkPad L14 Gen 3

H1 2023: IGEL UNVEILS COSMOS, THE UNIFIED END USER COMPUTING PLATFORM FOR SECURE, MANAGED ACCESS TO ANY CLOUD-DELIVERED DIGITAL WORKSPACE. CONSISTING OF IGEL OS 12, UMS 12, AND VALUE-ADDED CLOUD SERVICES, IGEL COSMOS AND UMS 12 WILL MANAGE AND CONTROL BOTH IGEL OS 11 AND OS 12 POWERED ENDPOINTS.

### Q1 2023: IGEL OS 11.08.290 with hardware support and client-updates

### IGEL OS 11.08.290 Key Features:

### Hardware-support

- HP t740
- · Lenovo K14

### Security updates

- Chromium 108 or later
- Firefox 102

### **Unified Communications**

- JVDI 14.1.3
- Zoom VDI 5.13.10
- Webex VDI 43.2
- Webex Meetings VDI 43.2

### Client updates

- Horizon Client 2212
- CWA 2302
- Citrix EPA
- HP Anyware 23.1
- Printerlogic 25.1.0.625
- LRS Printing V1R1.0.000

# H1 2023: IGEL OS 12 and COSMOS - THE EVOLUTION OF THE ULTIMATE ENDPOINT OS FOR VIRTUAL DESKTOPS

The cloud era is now, and more and more firms are using VDI and DaaS to reduce capital and operational expenses, complexity, and IT overhead, and to strengthen security. End-users are demanding more freedom and flexibility than ever to work when and where they prefer, on their end-point devices of choice. At the same time, IT teams need to retain full endpoint management and control, whether enterprise apps and data are accessed within a private cloud from a data center, a public cloud, or multiple clouds. As part of the IGEL COSMOS platform, IGEL OS 12 is designed specifically to meet the shifting needs of both IT and end-users.

### **IGEL COSMOS**

- IGEL OS 12
- UMS 12
- IGEL Cloud Services

### IGEL OS 12 - New Features

- Multi-cloud support
- Single sign-on
- Enhanced authentication
- Modular build
- Increased HW support
- Subscription-based licensing

### UMS 12 - New Features

Support for IGEL OS 11 and IGEL OS 12

### **IGEL Cloud Services**

- IGEL App Portal
- IGEL License Portal
- IGEL Customer Portal
- IGEL Onboarding Service
- · IGEL Insight Service

# H1 2023: IGEL OS 12 - Offer restructuring - separating apps from the base endpoint OS - IGEL COSMOS

### **IGEL OS 12.01.100 Key Features:**

### Sessions:

- Citrix Workspace App 2302 (incl. Citrix Multimedia Codec)
- Horizon 2212
- AVD 1.1.11 (incl. IGEL RDCore)
- Chromium 111 (incl. Chromium Multimedia Codec and Chromium libva)

### Tools:

- Parole Media Player
- Conky
- CUPS

### Plugins:

- FabulaTech USB for Remote (incl. Plugins)
- FabulaTech Webcam for Remote
- Nuance Dictation 3.0.1

### **Unified Communication Plugins**

- Zoom VDI 5.13.1
- Cisco Webex VDI 43.2
- Cisco Webex Meetings VDI 43.2

### **ENDPOINT OS: IGEL OS(RPI4)**

IGEL OS continues its success story by supporting the NComputing RX420(IGEL) device, based on the Raspberry Pi 4 platform.

# Q1 2021: IGEL OS(RPI4) enters the Arm market on the NComputing RX420(IGEL) device IGEL OS 11.01.100:

### Support for:

- Citrix Workspace App 2006 & 2010
- Citrix Workspace Hub (experimental)
- Chromium browser

### Q4 2022: IGEL OS(RPI4) with updates and additions

### **IGEL OS 11.02.110:**

- Kernel Update to 5.15
- Updated Chromium browser to version 104
- Added support for custom bootsplash
- Post-session command: Added multi-session support. It is now possible to define additional Session types which will all be covered by the post-session command mechanism
- Updated Resource Manager PC/SC Lite
- Updated a lot of other components
- · A lot of Security fixes!

# MANAGEMENT AND CONTROL: UNIVERSAL MANAGEMENT SYSTEM (UMS) AND IGEL CLOUD GATEWAY (ICG)

### 2019: UMS 6.0 - Offer restructuring - separating software from hardware

IGEL OS 11 introduced a new product structure where IGEL OS and the Universal Management Suite (UMS) software were separated and sold independently of IGEL hardware endpoint devices. The UMS included several value-added extensions, combined as a subscription license called the Enterprise Management Pack.

The Enterprise Management Pack added the following key capabilities

- IGEL Cloud Gateway to manage off-network endpoint devices
- Custom partitions to accommodate new interfaces and requirements before to the next release
- Asset Inventory Tracker to help track configuration and status of devices and peripherals attached to IGEL OS-powered endpoints
- Mobile Device Management
- Shared Workplace to allow users with different profiles and permissions to share common devices
- Unified Management Agent (UMA) to help manage Windows endpoints

### Q1 2020: UMS 6.04 - More security features and greater usability

### **UMS 6.04:**

- Shared Workplace can be deactivated
- Support for Secure Shadowing via IGEL Cloud Gateway (ICG 2.01.100 or higher and IGEL OS 11.02.100 or higher are required) for remote support and administration
- Installer and UMS Administrator perform database version check when a database is selected
- Improved general UMS Console performance for large enterprise installations (especially for hundreds or thousands of assignments)
- Universal Customization Builder (for Windows) is now for free no license required
- New Job Command "Send Messages" to schedule automatic messages
- UMS Server support of FTP passive mode for Universal Firmware Upload
- Check for free disk space on the file system before downloading firmware updates. This
  means the user will be informed in advance if there is insufficient storage space to avoid the
  need to cancel downloads that have been started
- UMS Licensing ID fingerprint added to the UMS Console (UMS Administration > Global Configuration > Licenses)
- Option to enable Master Profiles, Template Profiles and Recycle Bin moved to new node UMS Features (UMS Administration > Global Configuration > UMS Features)
- New Notifications:
  - Notifications for expiring and expired certificates (Help > Notifications)
  - Notifications for expiring and expired packs (Help > Notifications)
  - > Option to show archived notifications (Help > Notification)
  - > Option to restore archived notifications

### Q2 2020: UMS 6.04.120 - Easier migration of Windows endpoints to IGEL OS

### **UMS 6.04.120**

OS Creator for Windows (OSCW): Making it easy for a UMS console operator to migrate Windows PCs throughout a corporate network to IGEL OS

### Q3 2020: UMS 6.05 - A new UMS Web App and IGEL Cloud Gateway (ICG) improvements

### **UMS 6.05.100**

- Launch of the web-based UMS called UMS Web App
  - > Admin-friendly feature set, especially for performing helpdesk functions, including
    - a) find the right device quickly
    - b) perform comprehensive error analysis by shadowing a device, and
    - c) execute the most important power control commands
- Option to configure Windows firewall port exclusions in the UMS installer
- Option to install the UMS Web App component
- New user type for initial UMS setup, the "UMS superuser". With the introduction of the UMS superuser, the database user no longer has rights to access the UMS Console, the UMS Web App, or the IGEL Management Interface (IMI)
- Support of Active Directory authentication for MS SQL Server database
- UMS HA health check tool to check the status of an HA environment
- ICG 2.02.100
  - Important security fixes/improvements
  - > Reworked caching mechanism to avoid memory problems
  - > ICG installation using port 443 or any other privileged port
  - > Ability to limit the device connections for each ICG instance

### Q4 2020: UMS 6.06 - Certificate management, ICG, and UMS Web App improvements

### **UMS 6.06.100**

- New Management for the Web Certificate. This certificate is used for transferring files to the devices, all WebDAV-actions, inter-server communication, the IMI, and the UMS Web App. Owned certificates can be created and managed, as well as third-party certificates, including those from public certificate authorities (CAs).
- The ability to exchange the IGEL Cloud Gateway root certificate (ICG version 2.02.100 or later) via the 'Update Keystore' dialog
- With ICG, you will be able to exchange the IGEL Cloud Gateway root certificate.
- The UMS Web App extended with the presentation of all assigned objects with the ability to assign objects on device or device directory levels (Profiles, Master Profiles, Files, Firmware Customizations, Template Keys, Value Groups, and Universal Firmware Updates).

The release also includes several new commands, e.g., send settings to the device, receive settings from a device, reset to factory defaults, update, etc.

# Q1 2021: UMS 6.07 - New system information, improved HA installation, new features for UMS Web App

### **UMS 6.7.100**

- New system information "Last Contact": the timestamp will be updated whenever the device contacts the UMS.
- New "heartbeat" feature: configure devices to execute a regular signal based on a defined interval to make it much easier to identify dead devices
- New view criteria "configuration changes pending": allows an easy search for devices which are still waiting for updated settings
- UMS Cloud Installations: official support of UMS single server installations in Microsoft Azure and AWS environments
- Improved procedure to update high availability (HA) installations: enables a much faster update without any data inconsistencies.

The UMS Web App now offers new features for device management use cases:

- Quickly manage profiles via UMS WebApp (structure profiles in directories and subdirectories, assign profiles to devices and directories, add files to profiles)
- Give user groups/users permission to perform actions on multiple devices (bulk actions)
- Give user groups/users permission to delete loggings

# Q2 2021: UMS 6.08 - Enhanced Expert Mode, enhanced admin tasks, new features for the UMS Web App

### **UMS 6.8.100**

- Views: Enhanced Expert Mode to create and adjust complex views using a comfortable text input field
- Admin tasks: It is possible to specify a custom view export name for the administrative task "Export view results via mail" and "Save view results in the file system"

The UMS Web App now offers new features for the use case "Device management & Control":

- · Masterprofiles: Manage and structure master profiles in the directory tree
- · Quick Jump: Quick Jump from profile and master profile to devices and vice versa
- New icon set: New icon set with improved accessibility

# Q4/2021: UMS 6.09.100 - Support for Microsoft Windows Server 2022, UI and security improvements

### **UMS 6.09.100**

- Support for Microsoft Windows Server 2022
- Monitoring endpoint for requesting status of UMS server/ICG.
- Command-line interface for UMS Administrator with full feature set (except SQL console)
- · Basic information of used ICG certificates is now part of the support information

### UMS Web App:

- · Login Brute-Force Protection
- UI Improvements

### Q1/2022: UMS 6.10.100 - New Features and improvements for UMS console and UMS Web App

### **UMS 6.10.100**

- Synchronization of custom device attributes between UMS and devices
- Show MACs of all network adapters in UMS
- UMS cross subnet communication
- Distributed UMS messaging for non-HA installations

### UMS Web App:

- Implemented handling of "Device only" device attributes
- New tab for network adapters information

### Q1/2022: UMS 6.10.110, UMS 6.10.120 - New Features and improvements for UMS

### **UMS 6.10.110**

- Notifications for Rolling and Stable Releases of Firmware Updates
- IMI call to return all devices in view
- Customizable timeout for the action to upload device files for the support

### **UMS 6.10.120**

Secure Terminal was broken after replacing Log4j with Logback in UMS 6.10.110

### Q3/2022: UMS 6.10.130 - New Features and improvements for UMS

### **UMS 6.10.130**

- Updated: Apache Tomcat from version 8.5.75 to 8.5.82 to fix CVE-2022-25762
- Added: Two options for the device settings export, to either include all passwords or replace them with a placeholder

### Q4/2022: UMS 6.10.140 - Current fixes

### **UMS 6.10.130**

- [IGEL Cloud Gateway (ICG)] Fixed: Issues with updating to which ICG a device is connected.
   This could lead to a device being unmanageable if two or more ICGs were connected to the UMS.
- [Profiles] Fixed: The profile setting 'OpenVPN Set Auto' did not persist after copying or importing a profile, where the setting was enabled

H1 2023: IGEL UNVEILS COSMOS, THE UNIFIED END USER COMPUTING PLATFORM FOR SECURE, MANAGED ACCESS TO ANY CLOUD-DELIVERED DIGITAL WORKSPACE. CONSISTING OF IGEL OS 12, UMS 12, AND VALUE-ADDED CLOUD SERVICES, IGEL COSMOS AND UMS 12 WILL MANAGE AND CONTROL BOTH IGEL OS 11 AND OS 12 POWERED ENDPOINTS. UMS 12 SUCCEEDS UMS 6.

### Q2/2023: UMS 12

### **UMS 12.01**

- App Management: easy and intuitive app management. download the newest versions from App Portal, assign apps to devices and configure the app update behavior
- Configuration Dialog: Create, edit, and assign OS12 and OS11 profiles directly in UMS Web App. An app selector makes it easy to show only the required parameters
- License deletion: Easily delete devices in the UMS console and delete the assigned license on the device and make it available in ILP automatically.
- Unified Protocol: New way how OS12 devices communicate with UMS. It's a websocket and single port protocol that is made to be scalable, secure, and efficient.
- Many UI/UX improvements: Based on numerous user tests, the usability and user experience of UMS Web App was improved

### ICG 12.01.100

- ICG 12 is now compatible with OS11 and OS12
- Updates of Ubuntu, Debian, Spring Boot and Zulu JRE

### HARDWARE: IGEL ENDPOINT DEVICES AND IGEL UD POCKET

### 2019: IGEL OS 11 - Offer restructuring - separating software from hardware

### **Hardware**

### **IGEL UD2**

Powerful yet cost-effective endpoint suitable for most use cases. Ethernet only for added security (zero WiFi exposure) within highly controlled environments.

New IGEL design ID: New, modern, efficient, and powerful components and exterior "look" signify a very sleek, compact, and eco-friendlier design ID for the UD2 and IGEL's future endpoint hardware products.

### Q1 2020: IGEL UD7 (model H850C) Endpoint Added Security

### **Hardware**

### **IGEL UD7**

Our high-performing device for the most demanding multimedia use cases, was improved from a security standpoint with the AMD Secure Processor technology.

AMD Secure Processor is a built-in security system integrated into the AMD RX-216GD system-on-chip on the IGEL UD7. Putting the protection right on the processor, the embedded AMD Secure Processor checks whether the UEFI binary is cryptographically signed by a trusted party, in this case, IGEL. This verifies that the UEFI binary is authentic and not manipulated. This activation leverages a dedicated security system, initiating IGEL's security chain of trust at the hardware level on IGEL UD7.

### Q2 2020: New IGEL UD3 and Enhanced Connectivity to IGEL UD7

### **Hardware**

### **IGEL UD3**

IGEL's versatile endpoint device for cloud workspaces.

Combined with IGEL OS, the versatile UD3 empowers users with a high-fidelity digital experience and flexible expansion capabilities.

### Key features:

- Optimization of AMD Ryzen™ Embedded R1505G with Radeon™ Vega 3 Graphics ensures
  consistently low power usage on the UD3. This specific SoC variant runs on a lower thermal
  design power (TDP) of 10 watts at 2.0GHz up to 2.7GHz boost frequency as opposed to the
  standard 12-15 watts while maintaining its maximum performance. IGEL is the only endpoint
  device manufacturer to take this extra measure with AMD.
- AMD Secure Processor, a built-in security system integrated into the AMD system-on-chip
  on the IGEL UD3. Putting the protection right on the processor, the embedded AMD Secure
  Processor checks whether the UEFI binary is cryptographically signed by a trusted party,

in this case IGEL. This verifies that the UEFI binary is authentic and not manipulated. This activation leverages a dedicated security system, initiating IGEL's security chain of trust at the hardware level on the UD3

- Teradici PCoIP Ultra
- IGEL UD3 is the first endpoint device to include hardware acceleration of Teradici's PCoIP Ultra Software Client for Linux. Integrated into IGEL OS and powered by AMD SoC, offers outstanding performance for a rich, high-fidelity user experience to any cloud.
- Optional Intel® 9260 Wireless-AC WLAN and Bluetooth.
- 1 x SuperSpeed USB (3.2 Gen 1 Type-C™)
- 2 DisplayPorts 1.4 4K@60Hz offers a high-fidelity, rich multimedia experience on two displays.
- Chassis made from 30% recycled plastic is approx. 50% less volume than the predecessor model

### IGEL UD7 (model H850C)

Greater, more flexible connectivity for IGEL's high-end endpoint

The IGEL UD7 endpoint, our high-performing device for the most demanding multimedia use cases, was improved with the optional integration of Intel® 9260 Wireless-AC WLAN and Bluetooth.

### Q3 2020: Added security for the IGEL UD3

### **Hardware**

### **IGEL UD3**

AMD Memory Guard encrypts memory in real-time helping prevents unauthorized access to read sensitive data stored in RAM, mitigating cold boot attacks. Together with the AMD Secure Processor, AMD Memory Guard is part of a multi-layer security system built into AMD Ryzen™ PRO processors. This AMD security layer at the processor level fortifies IGEL's Chain of Trust on IGEL UD3.

### Q4 2020: The new UD Pocket2 Launch

### **Hardware**

### **IGEL UD Pocket2**

IGEL's new UD Pocket that supports both USB-A and USB-C interfaces.

The UD Pocket2 extends IGEL OS to any compatible x86-64 endpoint device featuring the latest USB -C port, including various MacBooks, notebooks, and desktop PCs. A reversible 2-in-1 design, this thumbnail-sized USB includes both USB-A and USB-C interfaces, one at either end. The UDP2 can be disconnected and reversed according to the user's requirements.

A protective cap easily attaches to both ends.

### Q1 2021: New IGEL UD7 (model H860C) high-performance endpoint launch

### **Hardware**

### **New IGEL UD7**

IGEL's high-performance endpoint device for cloud workspaces. Combined with IGEL OS, transform any graphics-intensive application and task into an immersive, high-fidelity digital experience across four 4K displays.

NOVEMBER 17, 2022: IGEL ENDS PRODUCTION OF IGEL-BRANDED HARDWARE, DEEPENS PARTNERSHIPS WITH LEADING DEVICE MANUFACTURERS

### HARDWARE: SUPPORTED DEVICES PURSUANT TO IGEL READY ADVANCED LEVEL

3rd party devices validated and supported for IGEL OS with Hardware ID in firmware.

### Q4 2020: Lenovo becomes advanced partner for IGEL Ready

M70q ThinkCentre - Support from IGEL OS 11.05.100
M75n ThinkCentre - Support from IGEL OS 11.06.100
14w Thinkpad - Support from IGEL OS 11.06.100
L14 Thinkpad - Support from IGEL OS 11.06.100
IOBOX dock (with Think Centre M75) - Support from IGEL OS 11.07.100
Type 40AF dock (with Lenovo L14) - Support from IGEL OS 11.07.100
L14 ThinkPad Gen 3 - Support from IGEL OS 11.08.230

### Q1 2021: LG enters the IGEL Ready program

34CN650N all-in-one - Support from IGEL OS 11.06.100 CL600N thin client - Support from IGEL OS 11.06.100

### Q3 2021: HP becomes advanced partner for IGEL Ready

t430 thin client - Support from IGEL OS 11.06.100 t540 thin client - Support from IGEL OS 11.06.100 t640 thin client - Support from IGEL OS 11.06.100 mt46 mobile thin client with HP G5 USB-C docking station - Support from IGEL OS 11.07.100 mt645 G7 mobile thin client - Support from IGEL OS 11.08.230

With IGEL COSMOS, UMS 12, and IGEL OS 12, IGEL customers can turn their users' endpoints into secure, cost-saving, and powerful machines designed for cloud-delivered digital workspaces – anywhere, from any device, and from any cloud.

