# FortiOS 5.0 Enhancement Summary

## System Administration
- Support configuration from Android & iOS devices through USB interface with FortiExplorer App
- Web-based Manager filtering & Columns improvements
- New option to format boot device before firmware update
- New CLI command to set factory default except VDOM/ interface settings
- Ability to disable the console login
- SNMP trap for FortiAP or FortiSwitch events
- SNMP implementation for Intelligent Platform Management Interface (IPMI) sensor
- SNMP Extensions for BGP
- Simplify GUI for FortiGate/FortiWiFi 20C and 40C
- Set DHCP options to get TFTP server IP and config file name to restore the configurations
- New setup wizard, included for all 1U models
- Central management configuration improvement
- Improved support for long hostnames in the CLI prompt

## Visibility
- Additional dashboard Widgets
- New & expanded Real-time Sessions Widgets
- Contextual Information: Device, OS, User, destination hostname & geographic visibility
- Unit operation widget on FortiGate 600C, 800C, and 1000C
- Display threat information from FortiGuard Encyclopedia

## FortiGuard Services
- FortiGuard Real time GeolIP updates
- FortiGuard SMS messaging service
- FortiGuard NTP & DNS Service
- FortiGuard DDNS Service
- FortiGuard USB Modern DB updates
- FortiGuard Device/OS Visibility signature updates
- Device based licensing for FortiCloud Service

## Routing & Network Services
- Support Spanning Tree Protocol (STP) for FortiGate Switch Mode interfaces
- Support Virtual Switch & Hardware Switch feature
- Switch port extensions
- Switch Fabric access control list (ACL)
- WCCP L2 mode
- Support per VLAN MTU setting
- SSH handover support
- Option to restrict the number of IP addresses that can be leased to the same MAC address
- BGP AS-Path rewrite
- Increased Router Policy limit
- Dynamically cost of lag interface
- DNS service profile
- High Availability
- Fortinet redundant UTM protocol (FRUP)
- Support configuration synchronization in standalone mode
- SSL-VPN authentication high availability (HA) failover support

## Device Based Identity
- Device Indentification with TCP fingerprinting
- Device type/group classification & management
- Device based Security Policy
- Enhanced SNMP based device monitoring

## Endpoint Control
- FortClient ubiquitous authentication
- FortClient registration
- Device based Security Policy
- Captive Portal for Endpoint control client checking & install
- FortClient configuration deployment for “off-net” security enhancement
- Support device based policy on remote location & routed network
- Endpoint Logging

## Client Reputation
- Multi-vector scoring
- Real-time Top Suspicious Client ranking

## User Based Identity
- Access Based SSO using 802.1x, Captive portal & FortiClient VPN
- Citrix & terminal services SSO Agent
- RADIUS-based SSO (Dynamic Profile)
- Support for secondary/backup remote authentication server
- Direct FSSO Polling Mode from FortiGate
- Support dynamic-profile for SSH proxy
- HTTP-only authentication over HTTPS channel
- Guest access provisioning

## OTP Token Server
- Secure OTP seed import
- Soft Token Activation & Management
- JSON API for token support

## Endpoint Services
- FortiWeb
- FortiDB
- FortiDDoS
- FortiClient
- FortiAccess
- FortiGuard

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## User Notification
- Fortinet Top Bar
- Firewall
- Reorganized service items
- Policy List enhancement
- New address type: Network Service
- Web-based Manager support for multicast policy and multicast address
- Dynamic comment field
- GeoIP Override
- Improvements to support asymmetric traffic flows
- IP fragment and NAT enhancements
- IP Pool Fixed Port Range
- Restriction to virtual IP (VIP) on specific interfaces
- SIP NAT enhancement & support for TLS inspection
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VPN
• Simplified VPN setup
• SSO support for FTP and SMB added under SSL-VPN
• Support SSL-VPN push configuration of DNS suffix
• Auto-IPsec restricted to desktop platforms
• Create new IPsec site-to-site and dial up tunnels directly from the policy page
• Support for IKE to bind to loop-back interface
• ARIA encryption

IPS
• IPS Engine version 2 - Improved resource usage & Performance
• DOS policy improvements
• Medium severity added to default IPS sensor

Application Control
• Custom Application Control Signatures
• Improve App Control profile for ftp and facebook
• Support SSH inspection

Antivirus
• New AV engine v5 - behavioural heuristic engine & OS independent sand boxing
• Auto submission to FortiGuard Analytics - Cloud based sand boxing
• Botnet C&C blocking with IP reputation
• MAPI & SMB protocol support

Email Filter
• Flow-based Email Inspection Mode

Web Filter
• DNS-based Web Filter
• Flow-based Web Filter support for replacement message in HTTPS Web Filter
• Yandex search engine; safe search support
• Search engine configuration
• One-arm URL filtering
• Content type scanning by FortiGuard category

DLP
• DLP watermarking
• New DLP GUI Configuration

Vulnerability Scanning
• FortiClient vulnerability scan

Wireless Controller
• Wireless client load balance
• Wireless mesh & bridging
• Bridge SSID with physical port
• WIDS Management flood detection
• Fake AP detection
• Automatic TX power adjustment
• Automatic Rogue APs suppression

SSL Offloading & Inspection
• Improved SSL inspection performance
• SSL inspection Support for IPS and Application Control
• Support for adding X-Forwarded-Proto for SSL offload half mode

WAN Optimization
• Support WAN Optimization and content scan in a single VDOM
• WAN Optimization per policy
• Dynamic data chunking for WAN Optimization byte cache
• HTTPS offload and HTTPS cache features
• Support Internet Content Adaptation Protocol (ICAP) in explicit Web Proxy
• Support cache-cookie option to set web cache behavior on cookie
• Explicit proxy and SSL decryption
• Explicit proxy (HTTP and FTP) support for dynamic profiles
• Explicit proxy integration with IPS and Application Control

Virtual Systems
• Standalone management VDOM
• Support DHCP servers on the VDOM-link interface
• NP4 accelerate inter-VDOM traffic
• Per VDOM and global limits on guest user accounts
• Global View Menu implementation
• Global FortiGuard server override
• Multi-VDOM admin
• Support VDOM link between transparent VDOM with NAI/Route VDOM

Log & Report
• New Log message organization
• MAC address logging
• Local-in policy logging
• Merge UTm incidents into traffic log
• Added option to log to FortiManager
• FortiCarrier: logging Improvements
• PDF report improvements
• Enhanced drill-down reports
• Charts for search phrase

IPv6
• IPv6 NAT: NAT66, NAT64, DNS64
• IPv6 explicit proxy
• IPv6 MBs
• IPv6 Per-IP shaper
• IPv6 policy routing
• IPv6 session pickup in HA mode
• NAT64 acceleration (XLR/XLP)
• Support IPS for IPv6 forwarding policy
• IPv6 SSL proxy IPS inspection
• NAT64 High Availability (HA)
• Support DHCP Client for IPv6 addresses
• DHCPv6 relay

Others
• Increased limit on URL filter, Web Profile, Group Profile, and Policy
• FortiCarrier: GTP monitor mode
• FortiCarrier: Support GPRS tunneling protocol version 2 (GTPv2) & extensions
• ELBCv3 enhancements & Support for FG5101C
• LACP support on the FortiSwitch 5203B

Note: This list may not be complete. Features may not be available to all FortiGate models. Please refer to FortiOS 5.0 release notes and administration guide.