



SUSE Manager for Retail

June 2020



What is new in SUSE Manager 4.1

As a key component of a retail software-defined infrastructure, SUSE Manager for 4.1 delivers the following new or enhanced capabilities to your retail environment:

Improved operational efficiency with new capabilities focused on supporting small store operations, enhanced offline capabilities and image management over Wi-Fi.

- Most large retailers have diverse store footprints. These may be large stores with hundreds of Point of Service (POS) devices but also smaller branches with only a few. Prior versions of SUSE Manager for Retail required a branch server to be present in each store which increased the cost and complexity of setup for certain environments. With SUSE Manager for Retail 4.1 we introduce the support for small branch operations where the branch server can run remotely in the data centre or in the cloud. With this you can manage multiple small stores without having to deploy a branch server in each of those stores.

From small to very large setups, this reduces complexity of the store infrastructure and lowers cost by reducing unnecessary hardware.

- When you open new stores, POS devices may be deployed before any network is available at the location. In order to get the new store operational

quickly, the POS terminals need to be brought up without the initial network boot cycle.

SUSE Manager for Retail 4.1 provides the ability to create an image for the USB as well as for an OEM preload, allowing to boot the terminal from the USB without having network connectivity upfront at the store.

- Also many stores today only use wireless networking. Adding wired networking in those stores for managing their POS devices would lead to increased costs and complexity. So, being able to manage the deployment and maintenance of POS terminals over the store's Wi-Fi removes the costs associated with physical networking.

Now you have the support for USB boot images, registers can easily be set up and locally booted using Wi-Fi and a USB stick. This provides greater business agility by allowing wireless "holiday registers" to be quickly deployed to meet seasonal demands in store.

Enhanced virtual machine management and monitoring capabilities, enabling fully-integrated store management.

- A major challenge you may face as a retailer is that store locations are typically geographically distributed with no dedicated IT staff available. In this case server virtualization plays a key role in modernizing a distributed store infrastructure

and helps improve operations. With virtualization retail environments can benefit from agility, availability and standardization. In order to stay ahead of the competition and provide the best shopping experience to their customers, retailers need to be able to deploy new applications to the stores quickly and efficiently.

The enhanced virtual machine management features of SUSE Manager for Retail 4.1 deliver performance, management and availability improvements to the store operations.

- SUSE Manager for Retail 4.1 expands the new Prometheus/Grafana-based monitoring stack introduced with version SUSE Manager 4 with enhanced support for large federated and non-routable network environments, ideal for monitoring highly distributed retail environments.

Retailers are not only able to monitor their branch servers in the stores but also their store POS devices. This allows the branches to collect metrics from the stores and send to a central aggregator that provides retailers with a centralized view of the health of their stores.

Scale Retail environments without compromise with performance and scalability enhancement.

- With the increasing prevalence of kiosks, self-checkout devices, IoT devices and digital signage in the stores, your retail environment has probably become very large. With our performance and scalability enhancements, SUSE Manager for Retail can now scale to tens of thousands of end point devices and beyond. This allows you the flexibility to grow your infrastructure as required by your business needs, with the assurance that SUSE Manager for Retail will be able to manage large retail estates.

With the “SUSE Manager Hub – **Tech Preview**” multi-server architecture we’re gradually introducing a framework that allows for scaling retail

deployments to the hundreds of thousands of nodes with tiered management servers.

Modernize your POS environment while ensuring reliability and stability with SUSE Linux Enterprise Point-of-Service 15 SP2.

- SUSE Manager for Retail 4.1 now provides you with predefined configuration templates to help you build SLES 15 SP2 based POS images. With SUSE Manager for Retail’s automated process, you can easily build and deploy these images on POS hardware in the store.

Deploying SLEPOS 15 SP2 images in the POS environment enables retailers to bring new hardware and services into the stores, as well as gain stability for your business critical POS infrastructure with a 7.5 years long-term support for this service pack.

SUSE Manager for Retail 4.1 is built on the latest release of SUSE Manager

SUSE Manager 4.1, the latest release from SUSE, further delivers a best-in-class open source infrastructure management solution that lowers costs, enhances availability and reduces complexity. Key Benefits of SUSE Manager 4.1:

Lower costs and streamline management with enhanced usability, virtual machine management and monitoring capabilities.

- Streamline the setup, daily use and maintenance of SUSE Manager simplifying and automating routine tasks.
- Enhanced virtual machine management capabilities ease the management of highly distributed virtualized server infrastructures. For customers that run virtual machine environments at the edge such as telco, manufacturing and retail, SUSE Manager enables the efficient management of tens to thousands of VMs across an entire customer estate.

Customers who run SAP workloads virtualized on SLES can eliminate complexity and simplify deployments by reducing the number of vendors in their software defined infrastructure management stack (OS, virtualization, virtualization management and monitoring all come from SUSE). SUSE Manager significantly simplifies environments where the frequent setup of virtualized test deployments of SAP workloads is required.

Customers who need to virtualize Kubernetes to best leverage their powerful hardware can accelerate growth by getting higher scale from their container platform while simplifying deployments (no need for a separate VMware layer, high automation from bare metal deployment to VMs to cluster). You can now use virtualization to securely separate multiple clusters/tenants in a Kubernetes environment.

Simplify management and regain control with expanded Operating System (OS) support and Cluster integration and management.

- Regain control of complex heterogeneous IT environments with extended target OS support now including Red Hat Enterprise Linux 8 (incl. modular repositories flattening), CentOS 6,7 and 8, Oracle Enterprise Linux, openSUSE Leap 15.2 and Ubuntu 20.04 LTS.

Only SUSE Manager combines software content lifecycle management (CLM) with a centrally staged repository, class-leading configuration management and automation, plus optional state-of-the-art monitoring capabilities, for all major Linux distributions.

Customers can significantly simplify their patch and configuration management stacks by standardizing on SUSE Manager across all Linux distributions and deployment modes (physical, virtual, and public cloud).

- Simplify cluster operations with the first Cluster aware version of SUSE Manager.

As customers modernize their IT landscapes to make use of Software Defined Infrastructure stacks based on technologies like Kubernetes and Ceph, the focus of managing the IT infrastructure has to move from managing individual Linux servers and VMs to managing infrastructure clusters. Multiple cluster types will be supported in coming releases, with SUSE Manager 4.1 initially providing support for SUSE CaaSP.

What are the advantages of deploying SUSE Manager for Retail?

From Mainframe and HPC Clusters, bare metal servers and VMs down to point-of-service terminals, kiosks, self-service and reverse-vending systems Linux deployments, SUSE Manager for Retail is designed to help you reduce costs, optimize operations, and ensure compliance across your IT infrastructure while reducing complexity and regaining control. With SUSE Manager for Retail, you can:

- Centrally create, deploy and maintain images for Point of Service devices.
- Deploy software updates to the Point of Service environment. Take advantage of Salt-based configuration management.
- Automate the configuration and deployment of a store server for physical/virtual workloads servicing the POS terminals.
- Automate monitoring, tracking, and reporting of systems. Utilize stronger security to prevent data loss.
- Maintain compliance in your Point of Service environment. Search for compliance status of systems regarding specific CVE reports.
- Ensure continuity of business operations in the event of a network outage between the store and a central management location.
- Maintain a fully managed, updated and compliant store environment with limited load on the available bandwidth between the store and a central management location.

- Ease virtual machine management complexity - with Salt based virtual machine management that allows the near real-time management hundreds of virtual machines in your retail environment (paid-for add-on subscription).
- Gain better infrastructure health insights and reduce downtime of your store environment - with the ability to provision, configure, and automate a reliable and easy to use monitoring and alerting infrastructure built on the next generation Prometheus and Grafana based monitoring stack (paid-for add-on subscription).

How does SLEPOS fit into the picture with SUSE Manager for Retail?

Legacy SLEPOS had a 3-tiered layered architecture comprising of an Admin server, multiple Branch servers and Point of Service Clients. We have moved away from an image management paradigm in legacy SLEPOS to a managed end-point paradigm with SUSE Manager for Retail.

This implies that the SLEPOS Admin and Branch server components have been discontinued, and SLEPOS will only refer to Point of Service Clients which can be built and managed via SUSE Manager for Retail.

What happens to existing SLEPOS customers?

All existing SLEPOS customers will be supported as per the support policies highlighted here: <https://www.suse.com/lifecycle/>

Can existing SLEPOS customers migrate to SUSE Manager for Retail 4.1?

Yes. All existing SLEPOS customers can migrate to SUSE Manager for Retail 4.1.

Please note that in addition to the technical requirements for this migration, there are additional commercial requirements which you may need to consider. Please contact a SUSE representative for further details.

What are the components of SUSE Manager for Retail?

SUSE Manager for Retail is made up of 2 main components:

SUSE Manager Server: SUSE Manager server provides the web-based user interface and connection to SUSE Customer Center. The SUSE Manager Server provides the ability to setup a KIWI build host for creation of operating system images for the point of service infrastructure. The Server captures and maintains data for the managed devices and provides comprehensive lifecycle management functionality via the user interface and a rich API for automation. You deploy SUSE Manager server behind your company firewall. SUSE Manager Server subscriptions are available:

- For environments with up to 50 managed instances
- For environments with more than 50 managed instances

SUSE Manager for Retail Branch Server: The branch server is installed in the store environment. It is the technical equivalent of the SUSE Manager Proxy Server, with enhanced functionality for the retail environment. It lowers bandwidth needs and provides faster local updates for deployments across dispersed geographical locations. The branch server provides the network boot and system management infrastructure for the point of service terminals. It can also serve as a generic system platform for in-store applications such as database systems and back ends for point of service applications. Deployed on-premise in the stores, the branch server. Runs DNS services for the local network, may run DHCP to control the network boot process. Conversely, instead of setting up the DHCP service on the branch server, an external DHCP server can be used. It also provides a boot infrastructure for point of service terminals and transfers system images from the SUSE Manager server to the terminals.

With SUSE Manager 4.1, the branch server can also be deployed remotely in the data center or in the public cloud. One remote branch server can service multiple store locations. In such a deployment scenario, the POS terminals either have to be booted locally (i.e. via USB) or via the network boot process if own DHCP is configured. The remote branch server then transfers images from the SUSE Manager server to the terminals of the locations it is servicing.

What is SUSE's solution for the retail industry?

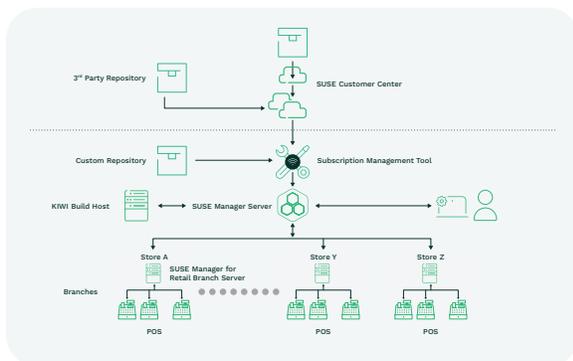
SUSE is focused on delivering a comprehensive solution for the management of the point of service environment. With that goal, SUSE is offering a combination of:

- **SUSE Manager for Retail** and
- **SUSE Linux Enterprise Point of Service Client**

These products come together to enable customers to manage the IT infrastructure supporting their point of service environments, from the data center to the end point devices.

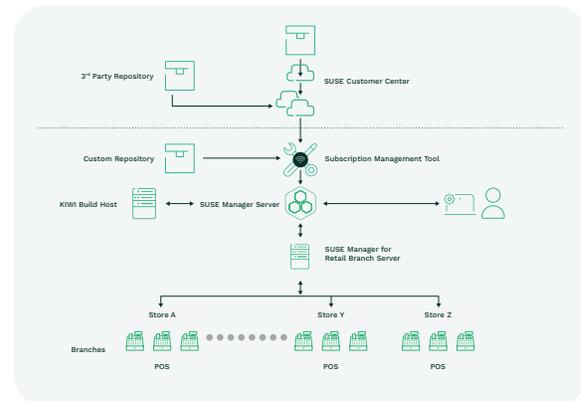
What does the reference architecture look like for SUSE's retail solution?

SUSE Manager for Retail Architecture I



The second architecture diagram reflects a SUSE Manager for Retail 4.1 remote branch server architecture.

SUSE Manager for Retail Architecture II



What are the subscriptions that I need to run this setup?

The following subscription offerings will be required to deploy SUSE's retail solution.

- SUSE Manager Server
- SUSE Manager for Retail Branch Server
- SUSE Linux Enterprise Point of Service Clients

Do I need to purchase SUSE Manager Lifecycle Management subscriptions separately for my managed devices?

For environments where SUSE Manager for Retail is deployed to manage the point of service infrastructure, Lifecycle Management for either the branch servers or the end point client devices need not be purchased separately.

Where do I get more information?

For more information about SUSE Manager for Retail, please visit: www.suse.com/products/suse-manager-retail/.

For more information on how to install and configure SUSE Manager for Retail, please visit: <https://www.suse.com/documentation/suse-manager-for-retail>.