

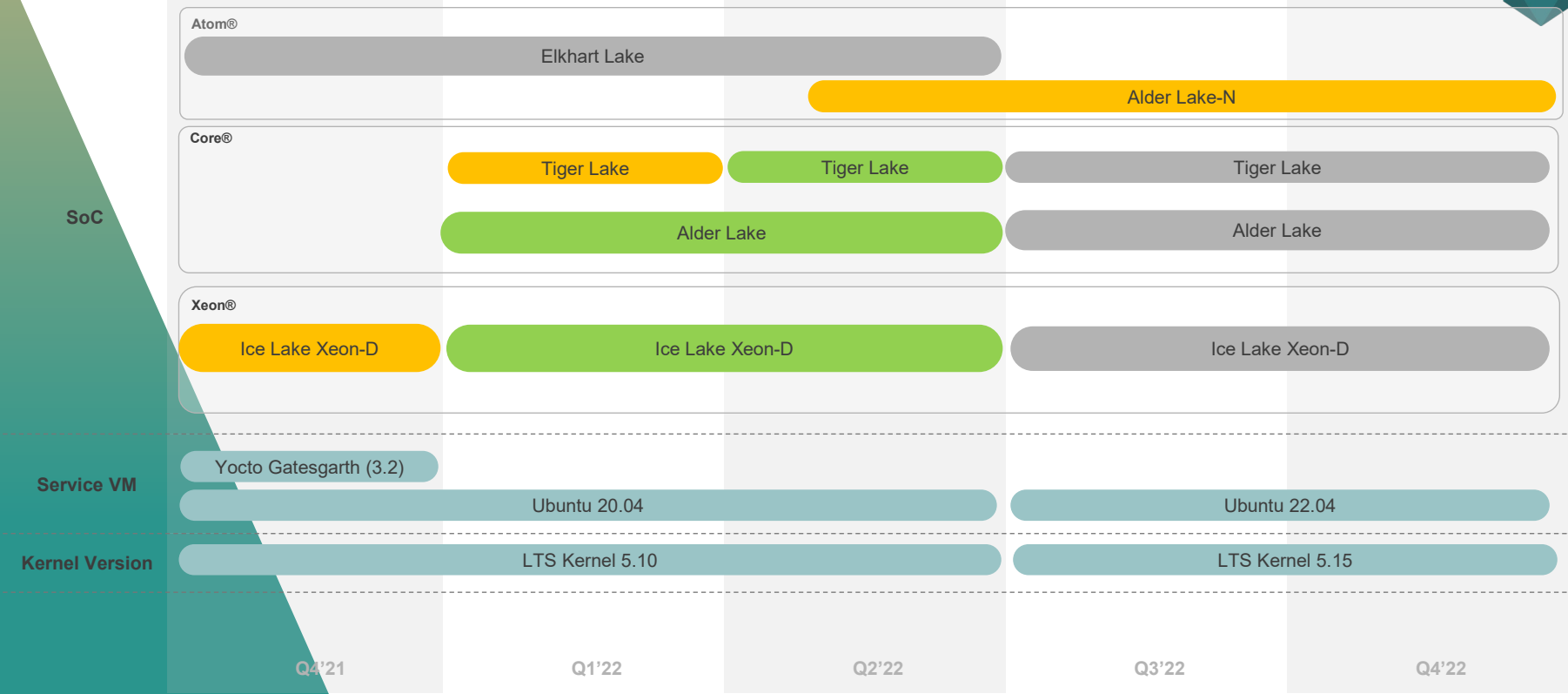
# ACRN

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**ACRN Open Source Roadmap 2022**

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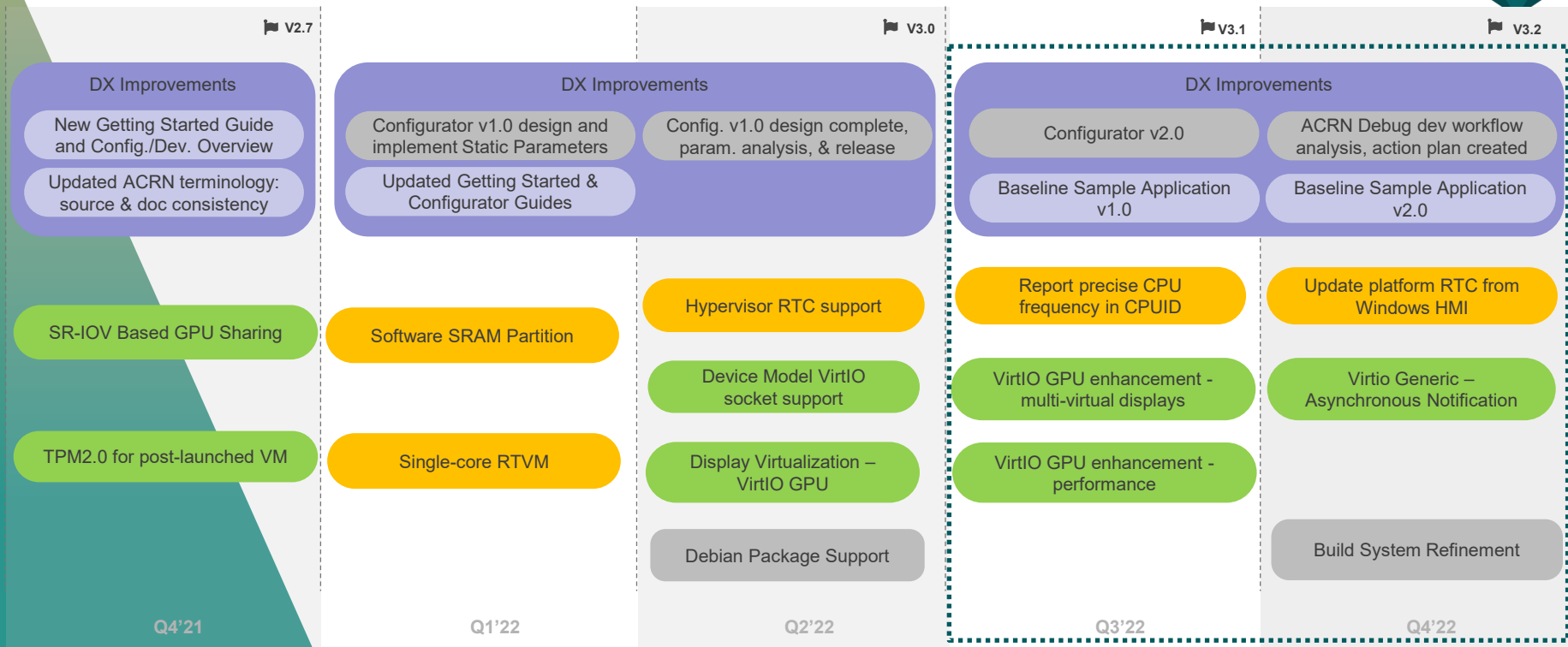
# 2022 ACRN Open Source Roadmap



\*Features and dates are for reference only and subject to changes without notice

- Power On, Feature Development (Alpha)
- Stabilization (PV)
- Sustaining

# 2022 ACRN Open Source Roadmap



Q3/4 \*Features and dates are for reference only and are under TSC review to change and update accordingly

- User/Developer Experience (DX)
- Hypervisor
- I/O virtualization
- Tools

# 2022 ACRN Roadmap Feature Description



Timing	Feature	Description
Q4'21 – Q2'22	Developer Experience (DX) Improvements	New Getting Started Guide, Configuration and Development Overview, and updated ACRN terminology for source code and documentation consistency and Developer Experience (DX) improvements.
		New Configuration tool designed and implemented with a new DX-improved UI that includes a reorganized and simplified presentation of configuration parameters and parameter input.
Q4'21	SR-IOV based GPU Sharing	Hypervisor support for Intel 12th Gen CPU Single Root IO Virtualization (SR-IOV) based GPU sharing to User VMs.
	TPM Device Passthrough	Hypervisor support for Trusted Platform Module (TPM) device passthrough to post-launched User VM.
Q1'22	Software SRAM Partition	Hypervisor assigns software SRAM to Service VM if there is no pre-launched RTVM. Service VM partitions software SRAM and supports assigning different partitions to different User VMs.
	Single-core RTVM	Hypervisor support for Single-core RTVM, for both Preempt-RT and Xenomai.
Q2'22	Hypervisor RTC Support	Hypervisor support for virtualized PC/AT compatible RTC/CMOS device to both pre- and post-launched RTVM.
	Device Model Virtio Socket Support	ACRN Device Model support for virtio socket device with stream socket type, as specified by Virtual I/O Device Committee Specification.
	Display Virtualization–Virtio GPU	ACRN Device Model support for virtio GPU display engine, as specified by Virtual I/O Device Committee Specification.
	Debian Package Support	Hypervisor support for building a Debian package that contains all built hypervisor binaries and allows user to select the binary to deploy during package installation on the target system.

# 2022 ACRN Roadmap Feature Description



Timing	Feature	Description
2H'22	DX Improvements	Continue configuration tool implementation with a new DX-improved UI that includes a reorganized and simplified presentation of configuration parameters and parameter input.
		Baseline sample application and documentation for a common two-VM ACRN customer usage model that includes a Human Machine Interface (HMI) VM and a real-time VM.
	Report precise CPU frequency in CPUID	Provide VMs with the precise CPU frequency to avoid systematic drifts of VM clocks.
	Update Platform RTC from Windows HMI	Enable updating platform RTC in scenarios where the Windows VM is the only one visible to end users.
	Virtio GPU Enhancement - Multi-virtual Displays	Support multi-virtual displays with virtio GPU.
	Virtio GPU Enhancement - Performance	Improve GPU performance with virtio GPU.
	Virtio Generic – Asynchronous Notification	Optimize virtio mediator performance by implementing an ioeventfd-like mechanism.
	Build System Refinement	Refactor and optimize ACRN build system for better integration with the Configurator and an improved Developer Experience.

