

Activity	Action	Initiator	Initiator Detail	Endpoint	Endpoint Detail	Port	Protocol	SELinux type	Notes
Capsule Registration	Capsule Registration (content host)	Capsule	subscription-manager	Satellite Server	Apache (Katello)		443 https	http_port_1	Katello's Candlepin Proxy
	Capsule Registration (smart-proxy)	Capsule	Smart Proxy	Satellite Server	Apache (Foreman API)		443 https	http_port_1	
	Capsule Feature Retrieval	Satellite Server	Apache (Foreman)	Capsule	Smart Proxy		9090 https	websm_port_1	
Content Promotion	Initiation	Satellite Server	Apache (Katello)	Satellite Server	Apache (Pulp)		443 https	http_port_1	API call tells Pulp to do necessary things for promotion
Content Sync	Initiation	Satellite Server	Apache (Katello)	Satellite Server	Apache (Pulp)		443 https	http_port_1	API call tells Pulp to do necessary things for promotion
	Remote Yum Repository	Satellite Server	Apache (Pulp)	Remote Repository			80 http	http_port_1	Typically HTTP, but could be other protocols
	Red Hat CDN	Satellite Server	Apache (Pulp)	Red Hat	CDN		443 https	http_port_1	
Content Mirroring	Initiation	Satellite Server	Apache (Pulp)	Satellite Server	Qpid		5671 amqp	amqp_port_1	Happens after sync and promote
	Forward Message to Dispatcher	Satellite Server	Qpid	Satellite Server	Dispatch Router		5671 amqp	amqp_port_1	
	Forward Message to Agent	Satellite Server	Dispatch Router	Capsule	Katello Agent		5647 amqp	unconfined_service_1	
	Content Mirroring	Capsule	Apache (Pulp)	Satellite Server	Apache (Pulp)		443 https	http_port_1	
Content Host Registration	Capsule CA RPM Installation	Capsule	yum	Capsule	Apache		80 http	http_port_1	Downloads the katello-ca-latest RPM for configuring RHSM + installation of CA certs
	Initiation	Client	subscription-manager	Capsule	Reverse Proxy		8443 https	http_port_1	
	Forward request to Satellite	Capsule	Reverse Proxy	Satellite Server	Apache (Katello)		443 https	amqp_port_1	Katello's Candlepin Proxy
Puppet Run	Manifest Request	Client	Puppet agent	Capsule	Puppet Master		8140 https	puppet_port_1	
	External Node Classification	Capsule	Puppet Master	Satellite Server	Apache (Foreman)		443 https	http_port_1	
	Run Report	Capsule	Puppet Master	Satellite Server	Apache (Foreman)		443 https	http_port_1	
Provisioning	Smart Proxy API Requests (Configuring TFTP, DHCP, et	Satellite Server	Apache (Foreman)	Capsule	Smart Proxy		9090 https	websm_port_1	Orchestration actions configure the Smart Proxy for provisioning - requesting an IP, setting TFTP PXE config, etc.
	DHCP	Client	BIOS/EFI	Capsule	DHCP		67/68 (udp) dhcp	dhcp_port_1	
	PXE	Client	BIOS/EFI	Capsule	TFTP Server		69 (udp) tftp	tftp_port_1	
	Template Retrieval (Client -> Capsule)	Client	Anaconda	Capsule	Smart Proxy		8000 http	soundd_port_1	Templates proxy delivers template to client over port HTTP/port 8000
	Template Retrieval (Capsule -> Satellite)	Capsule	Smart Proxy	Satellite Server	Apache (Foreman)		443 https	http_port_1	Templates proxy retrieves template over SSL from Foreman
	Installation	Client	Anaconda / Yum	Capsule	Apache (Pulp)		80 / 443 https / http	http_port_1	
Orchestration	Validation of DNS conflicts	Server	Foreman	DNS server	bind		53 dns	dns_port_1	The DNS service must be reachable directly to Satellite Server - overridable with query_local_nameservers setting
	DNS records	Capsule	nsupdate	DNS server	bind		53 dns	dns_port_1	The capsule is usually on the same server as Bind (i.e localhost, no firewall changes)
	DHCP records	Capsule	omapi	DHCP server	ISC dhcp		7911 omapi	dhcpd_port_1	The capsule is usually on the same server as ISC (i.e localhost, no firewall changes)
	Realm records	Capsule	XMLRPC API	IdM Server	Apache		443 https	http_port_1	
Package Installation	Yum Execution	Client	Yum	Capsule	Apache		443 / 80 https / http	http_port_1	
Power Management	BMC On/Off/Cycle/Status	Capsule	User initiated API/UI	Client	IPMI Device		ipmi		
Discovery	Host discovery and provisioning	Discovered nod	Discovery Image	Capsule	Smart Proxy		9090 https	websm_port_1	Discovery node reports in Satellite 6 and sends facts
		Satellite Server	Apache	Capsule	Smart Proxy		9090 https	websm_port_1	Satellite 6 sends "reboot" command to Capsule (to be proxied to the discovered host)
		Capsule	Smart Proxy	Discovered nod	Image Proxy		8443 http	http_port_1	Capsule sends "reboot" command to the discovered host (HTTP only)
Bootdisk	iPXE chained template retrieval (Client -> Capsule)	Client	iPXE firmware	Capsule	Smart Proxy		8000 http	soundd_port_1	iPXE firmware from bootdisk configures network and chainloads additional iPXE script
	iPXE chained template retrieval (Capsule -> Satellite)	Capsule	Smart Proxy	Satellite Server	Apache (Foreman)		443 https	http_port_1	Proxy retrieves template over SSL from Foreman
Remote Install	Initiation	Satellite Server	Apache (Katello)	Satellite Server	Apache (Pulp)		443 https	http_port_1	API call tells Pulp to begin consumer action
	Send install command to client	Satellite Server	Apache (Pulp)	Satellite Server	Qpid		5671 amqp	amqp_port_1	
	Forward message to dispatch router on Satellite	Satellite Server	Qpid	Satellite Server	Dispatch Router (Hub)		5671 amqp	amqp_port_1	Dispatch router is connected to Qpid on localhost
	Forward message to dispatch router on Capsule	Satellite Server	Dispatch Router (Hub)	Capsule	Dispatch Router		5646 amqp	unconfined_service_1	Communications from Capsule to Satellite Server (initiated from Client over 5647
	Forward message to client	Capsule	Dispatch Router	Client	Katello Agent		5647 amqp	unconfined_service_1	Communications from Management Host to Capsule
	Installation/Removal/Update	Client	Yum	Capsule	Apache (Pulp)		443 / 80 https / http	http_port_1	
Telemetry Data Upload	Send data to Red Hat Portal	Client	Telemetry data uploader	Capsule	Reverse Proxy		443 https	http_port_1	Reverse proxy forwards data to Red Hat Access plugin REST service on Satellite Server
Telemetry Data Upload/ Report ac	Send and read data to/from Red Hat Portal	Satellite Server	Red Hat Access plugin	cert-api.access	Telemetry service		8443 https	http_port_1	Sends data for analysis and also retrieves analytics reports
OpenSCAP	Configure client	Client	Puppet Agent	Capsule	Puppet Master		443 https	http_port_1	This is a normal puppet agent run, which configures "foreman_scap_client", yet at this point, SCAP content needs to be installed manually at the client host
	Send report to Capsule	Client	foreman_scap_client	Capsule	Smart Proxy		9090 https	websm_port_1	Send generated SCAP report to Capsule for spooling
	Send report to Satellite Server	Capsule	Smart Proxy	Satellite Server	Apache (Foreman)		443 https	http_port_1	Upload report to Satellite, process results and display in web ui
<b>Flows with no Separate Capsule</b>									
<b>Flow</b>	<b>Action</b>	<b>Initiator</b>	<b>Initiator Detail</b>	<b>Endpoint</b>	<b>Endpoint Detail</b>	<b>Port</b>	<b>Protocol</b>	<b>SELinux type</b>	<b>Notes</b>
Content Host Registration	Capsule CA RPM Installation	Client	yum	Satellite Server	Apache		80 http	http_port_1	Downloads the katello-ca-latest RPM for configuring RHSM + installation of CA certs
	Initiation	Client	subscription-manager	Satellite Server	Apache (Katello)		443 https	http_port_1	Candlepin Proxy
Remote Install	Initiation	Satellite Server	Apache (Katello)	Satellite Server	Apache (Pulp)		443 https	http_port_1	
	Send install command to client	Satellite Server	Apache (Pulp)	Satellite Server	Qpid		5671 amqp	amqp_port_1	
	Forward message to dispatch router on Satellite	Satellite Server	Qpid	Satellite Server	Dispatch Router (Hub)		5671 amqp	amqp_port_1	Dispatch router is connected to Qpid on localhost
	Forward message to client	Capsule	Dispatch Router	Client	Katello Agent		5647 amqp	unconfined_service_1	
	Installation/Removal/Update	Client	Yum	Capsule	Apache		443 / 80 https / http	http_port_1	
Provisioning	Template Retrieval	Client	Anaconda	Satellite Server	Apache (Foreman)		80 http	http_port_1	
Bootdisk	iPXE chained template retrieval	Client	iPXE firmware	Satellite Server	Apache (Foreman)		80 http	http_port_1	iPXE firmware from bootdisk configures network and chainloads additional iPXE script
Package Installation	Yum Execution	Client	Yum	Satellite Server	Apache (Pulp)		443 / 80 https / http	http_port_1	
Compute Resources	Fog interactions (query/create/destroy/etc)	Satellite Server	Fog	Compute Resou	Openstack		5000 http	complex_main_port_1	
Compute Resources	Fog interactions (query/create/destroy/etc)	Satellite Server	Fog	Compute Resou	EC2		443 https	http_port_1	
Compute Resources	Fog interactions (query/create/destroy/etc)	Satellite Server	Fog	Compute Resou	vMrt		443 https	http_port_1	
Compute Resources	Fog interactions (query/create/destroy/etc)	Satellite Server	Fog	Compute Resou	Libvirt		22 / 16514 ssh / t/s	ssh_port_1_virt_port_1	Either is common
Telemetry Data Upload	Send data to Red Hat Portal	Client	Telemetry data uploader	Satellite Server	Apache (Katello)		443 https	http_port_1	Red Hat Access plugin runs a REST service for forwarding data to Red Hat
Telemetry Data Upload/Report ac	Send and read data to/from Red Hat Portal	Satellite Server	Red Hat Access plugin	cert-api.access	Telemetry service		443 https	http_port_1	