



SteelConnect EX Director Release Notes

Version number 20.2.2
Release date September 2020
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SteelConnect EX Director Release Notes for Release 20.2

This document describes features, enhancements, fixes, and known issues in SteelConnect EX Director Software Release 20.2, for Releases 20.2.0 (simply called 20.2) through 20.2.2.

Release 20.2.2 is a general available (GA) release and is supported for use in production networks.

September 2020

New Features

For a list of new features in SteelConnect EX Director Software Release 20.2, see *What's New in Release 20.2*.

Software Version Compatibility

SteelConnect EX Director Release 20.2.2 is compatible with Versa OS™ (VOS™) devices running the following software versions:

- Release 20.2.2
- Release 20.2.1
- Release 16.1R2S10.1
- Release 16.1R2S10.2
- Release 16.1R2S9

Upgrade to Release 20.2

Before You Upgrade to Release 20.2.2

The Release 20.2.2 Director software enforces stringent validation checks on configurations. Upgrading to Release 20.2.2 will fail if the configuration has duplicate site/device IDs or duplicate paired-location IDs, or if organization attributes such as VRF IDs or UUID are missing. Before you upgrade to Release 20.2.2, you must run an upgrade validation script to identify all configuration discrepancies, and you must fix them before you upgrade.

First, download the `versa-director-patch-20.2.2.bin` file from Release 20.2.2 Director software folder and run it from the Director Linux shell:

```
chmod +x ./versa-director-patch-20.2.2.bin
sudo ./versa-director-patch-20.2.2.bin
```

If you are upgrading from Release 16.1R2, use the following validation script:

```
sudo /opt/versa/vnms/upgrade/scripts/validate.py -f 16.1R2 -t 20.2
```

If you are upgrading from Release 20.2.1, use the following validation script:

```
sudo /opt/versa/vnms/upgrade/scripts/validate.py -f 20.2 -t 20.2
```

Before you upgrade the Director software to Release 20.2.2, upgrade the OS SPack on all Director nodes to the version in the latest subfolder at <https://versanetworks.app.box.com/v/osspack> or <https://upload.versa-networks.com/index.php/s/nEkF9xOO3e7BA9Z>. If you do not upgrade the OS SPack, the Director upgrade may fail.

To install the Release 20.2.x Director software, each Director node, whether a virtual machine (VM) or a bare-metal server, must have a minimum disk size of 150 GB.

If your deployment includes HTTP proxy, see the section “Enable HTTP 2.0 on Proxies” below.

Upgrade to Release 20.2

To upgrade to Release 20.2:

1. Copy the appropriate bin package file to the Director /var/versa/packages/vnms directory using scp or ftp. Alternatively, use the following command to copy the file to the /var/versa/packages/vnms directory:

```
Administrator@versa-director> request system package fetch uri <URI>
```

2. Install the new software package:

```
Administrator@versa-director> request system package upgrade <.bin>
```

When you upgrade from Release 16.1R2 to Release 20.2.2 from the Director CLI, you might see the following error:

```
Administrator@director1> request system package upgrade versa-director-20200524-065912-45d87aa-20.2.2.
bin
Will restart Versa Director (all processes). Are you sure? [no,yes] yes
Verify package checksum..
status Some of the packages on this system are not correctly installed, please resolve before upgrading Versa
Director
Desired=Unknown/Install/Remove/Purge/Hold
| Status=Not/Inst/Conf-files/Unpacked/halF-conf/Half-inst/trig-aWait/Trig-pend
|/ Err?=(none)/Reinst-required (Status,Err: uppercase=bad)
||/ Name                               Version                               Architecture Description
+++=====
=====
=====
rc amd64-microcode                     3.20180524.1~ubuntu0.14.04.2+really20130710.1ubuntu1 amd64
Processor microcode firmware for AMD CPUs
rc intel-microcode                     3.20180807a.0ubuntu0.14.04.1          amd64      Processor
```

microcode firmware for Intel CPUs

To resolve this issue, either upgrade the Director node from the GUI or issue the following commands from the Linux shell to manually remove the offending packages and then upgrade the Director software again from the CLI:

```
sudo dpkg --purge amd64-microcode
sudo dpkg --purge intel-microcode
```

Downgrade the Software

To downgrade to the installed image immediately prior to the upgrade, issue the following command:

```
Administrator@versa-director> request system rollback to <snapshot-timestamp>
```

The SteelConnect EX Director configuration and image is restored to the state when the snapshot was taken. Note that any configuration changes done since the snapshot was taken are lost when you perform the rollback operation.

Install Software License for SteelConnect EX Director

SteelConnect EX Director is controlled by a software license. You must obtain a valid license file by contacting Riverbed support. See the section “Request Technical Support” below.

Note the following:

- SteelConnect EX Director software stops running after the default license expiration time of 15 days. To continue to use the Director software, you must obtain a license key within the 15-day trial period.
- On all newly installed SteelConnect EX Director nodes, you must run the Director startup script, `/opt/versa/vnms/scripts/vnms-startup.sh`, to configure the Director network interfaces correctly for their intended function. For example, interface `eth0` must be configured for northbound communications towards OSS systems and for UI access, and interface `eth1` must be configured for southbound communications towards FlexVNF devices.

Enhancements

The following tables list the enhancements in Release 20.2.

Enhancements in Release 20.2

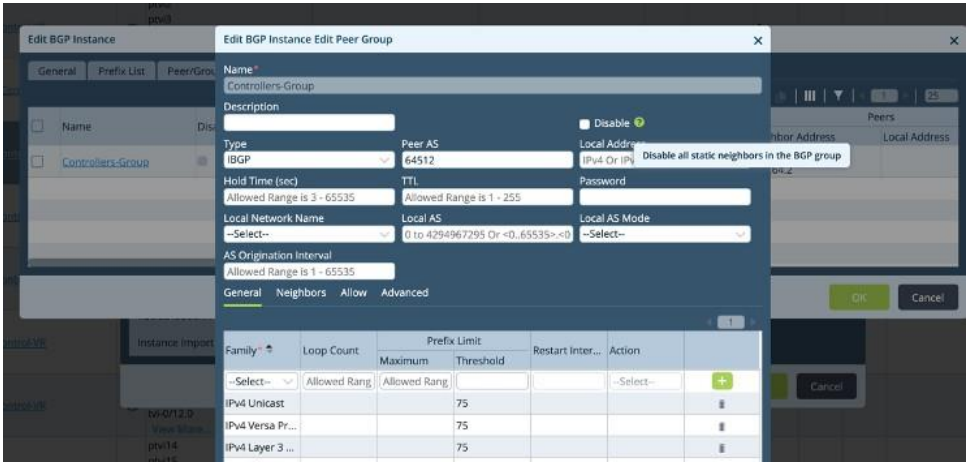
Feature Tracking Bug	Description
37337	<p>Replace the NCS internal RBAC framework with the SteelConnect EX next-generation RBAC framework.</p> <p>SteelConnect EX Director uses the NCS NACM framework to handle RBAC needs. NCS NACM works with small sets of rules for each configuration object. As the number of configuration objects in the system increases, a large amount of framework data is created and performance degrades. As a result, the user experiences slowness when creating and deleting appliances, when creating template, and when performing other tasks.</p> <p>The enhancement solves the performance issue, allowing SteelConnect EX Director to handle a large number of configuration objects and to support a large number of devices. With the new framework, only the UI and REST layers are protected by RBAC; the CLI is not. This means that any user who has access to the Director node can use the CLI to view all available data. Therefore, it is highly recommended that you limit CLI access to the Director node.</p>
39179	Peak Tx/Rx bandwidth usage is shown in Subscription Usage Report.
41080	IP Profiles listing page shows the Address Reverse Lookup fields.

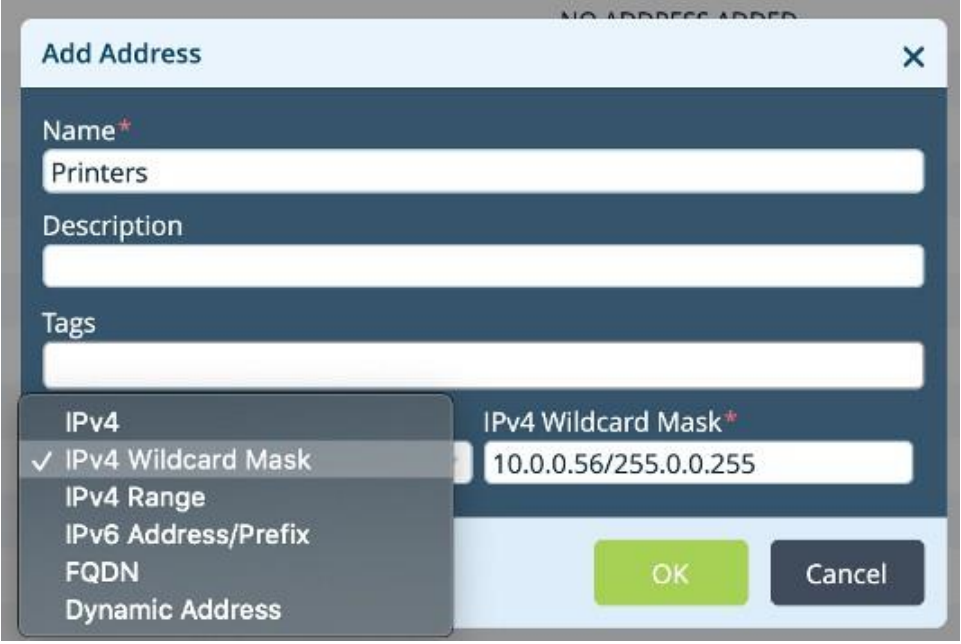

Enhancements in Release 20.2.1

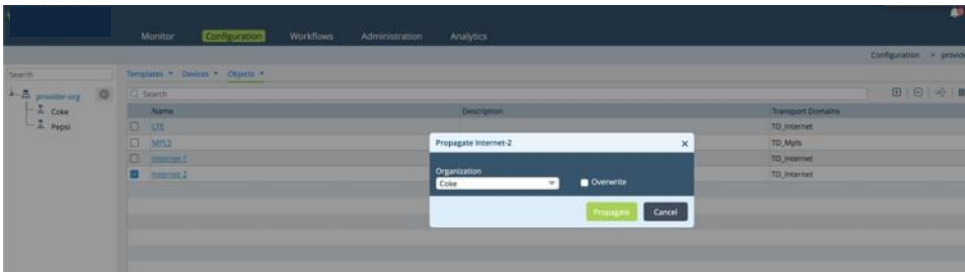
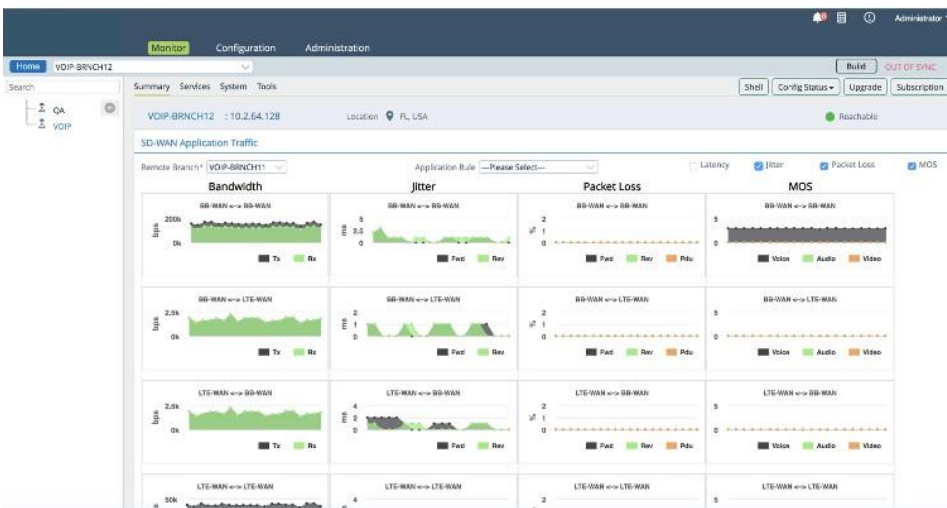
Feature Tracking Bug	Description
44704	SteelConnect EX Director triggers an alarm when the SSL certificate has expired or if it is in the critical (last 7 days) or warning (last 30 days) stages of expiration. It will automatically clear the alarm in case the certificate has been renewed.
40804	When you use a device Workflow to configure an Active-Active HA Configuration, the bind data variable Paired_Site_locationID is autogenerated. If a value is empty, multiple device workflows can be paired, so you have to enter the generated paired site ID of other device workflow.

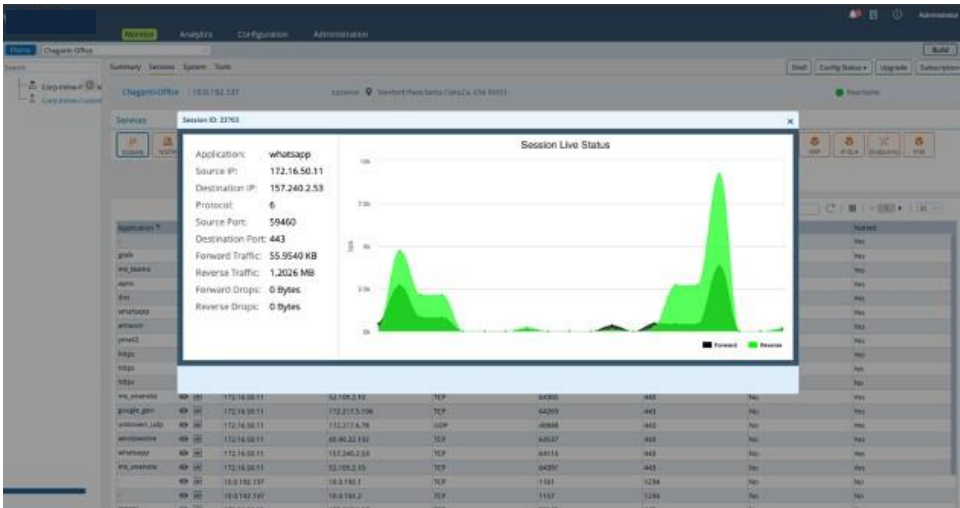
Feature Tracking Bug	Description
47184	In the Director Configuration > Objects > WAN Networks screen, you can copy the WAN networks of a parent organization to its suborganizations (tenants). Previously, you had to manually configure and modify the tenants' WAN networks.

Enhancements in Release 20.2.2

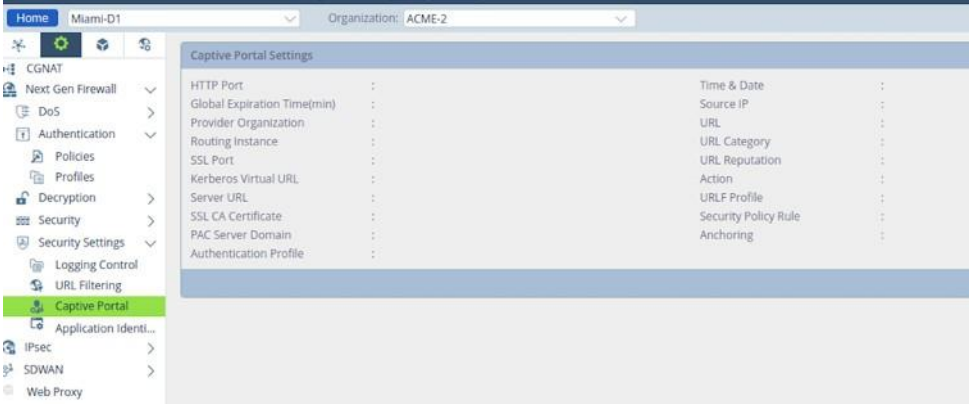

Feature Tracking Bug	Description
40846	<p>Add BGP peer group and neighbor-level option to disable neighbors in the Edit BGP Instance Edit Peer Group Window.</p> 
41584	When FlexVNF devices generate many alarms, notifications about alarms generated by FlexVNF devices are turned off by default to prevent slowing of the browser. To turn on notifications, issue the set system ui-notification-settings enable-cpe-alarm-notification true command in the Director CLI.
42107	Address objects support wildcards. Add address type ipv4-wildcard-mask.

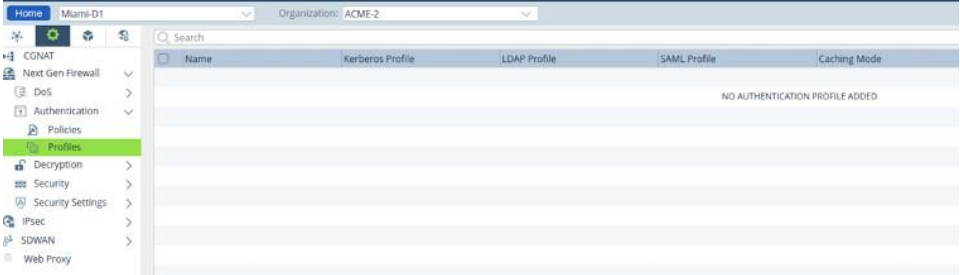
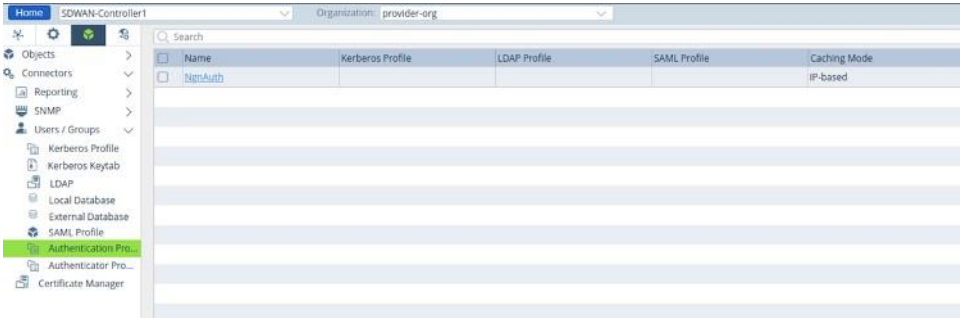
Feature Tracking Bug	Description
	
46985	You can parameterize DHCP options in an options profile.
46987	You can create a single-interface VNF with only management connectivity on a uCPE device.
46990	You can parameterize guest VM name in service chain service templates so that you can configure different names for VMs running on different uCPE devices in an enterprise network.
47184	<p>In the Director Configuration > Objects > WAN Networks, the Propagate option propagates WAN networks from the current organization to suborganizations. This helps to introduce new WAN networks in the parent organization and to easily clone them to the suborganizations. Select the WAN network to propagate and click the  Propagate icon.</p>

Feature Tracking Bug	Description
	
47634	<p>Enhance monitor summary to display SD-WAN application traffic for a selected application rule and remote SD-WAN branch. Live graph displays bandwidth, latency, jitter, packet loss, and MOS on all paths between SD-WAN branches.</p> 
47816	<p>Tenant super-admin users can update security packs (SPacks) on devices that they are entitled to manage.</p>
47986	<p>Kafka client can send notifications to the Kafka bus. Notifications are similar to the AMQP notifications. The following is a configuration example for a Kafka connector:</p> <pre> Administrator@SDWAN-VOAE1% show nms provider kafkaconnectors kafkaconnector ecp-10.40.7.175 { bootstrapServers { bootstrapServer node1 { </pre>

Feature Tracking Bug	Description
	<pre> host broker1; port 9092; } } enableNotification enabled; enableTasksNotification enabled; enableObjectChangeNotification disabled; } </pre>
48467	<p>Optimize REST APIs to fetch organizations quickly when they are creating device and template workflows. The optimizations load workflow popup windows more quickly on systems that have many organizations.</p>
48529	<p>Update the Device Monitor Live sessions page to display live session bandwidth graph, paginated sessions table, more relevant table columns, and extensive attributes for a selected session.</p> 
48667	<p>Add a single API to fetch Controllers and Director HA status:</p> <pre> vnms/dashboard/status/headEnds { "versanms.HeadEndSummary": { "haStatus": "MASTER", "applianceStatus": [</pre>

Feature Tracking Bug	Description
	<pre> { "ip-address": "10.48.7.11", "name": "SDWAN-Controller1", "uuid": "2b6d93fd-fcb2-4d59-aa31-682a266e60e2", "status": "REACHABLE", "lockStatus": "UNLOCKED", "syncStatus": "IN-SYNC" }, { "ip-address": "10.48.7.12", "name": "SDWAN-Controller2", "uuid": "32cb1b10-c40e-4280-ad45-a1b84fa7805f", "status": "REACHABLE", "lockStatus": "UNLOCKED", "syncStatus": "IN-SYNC" }] } </pre>
49872	Tenant operator users can use debug tools on the Appliance Monitor screen.
50431	Add wildcard mask support for address objects definition.
53346	In the Director GUI, user sessions timed out if users did not send any API calls to the backend server within the configured idle timeout window. Now, a popup notification window is displayed that allows you to extend the current session.
No bug number	<p>The Captive Portal configuration screen has been moved from Services > Next-Gen Firewall > Security Settings in the left menu bar to Services > Captive Portal. This is because services such as secure access also require the captive portal service without enabling NGFW.</p> <p>Old Location:</p>

Feature Tracking Bug	Description
	<div data-bbox="267 394 1230 795"></div> <p data-bbox="267 909 435 936">New Location:</p> <div data-bbox="267 993 1230 1268"></div>
No bug number	<p data-bbox="267 1350 1461 1417">The Authentication Profile screen has been moved from Nex-Gen Firewall > Authentication Profiles in the left menu bar to Objects > Connectors > Users/Groups > Authentication Profiles.</p> <p data-bbox="267 1497 423 1524">Old Location:</p>

Feature Tracking Bug	Description
	 <p>New Location:</p> 

Fixed Bugs

The following tables list the critical and major defects that were fixed in Release 20.2.

Fixed Bugs in Release 20.2

Tracking Bug	Description
39925	Monitor tab in director GUI of appliance shows older values in Hardware Details

Tracking Bug	Description
33250	Not able to change Non-Business application tag to Business tag for the second time
37692	Signature list ID no longer displayed in threat exceptions after you change the IPS profile configuration under rules.
38792	Console access for guest VNFs on uCPE appliance is not working
39307	Director generated alarms like Slave going away are not show under notification bell icon
38644	Monitoring tab is showing wrong appliance management IP address sometimes
39470	Restoring snapshot on one of the devices while multiple devices having same snapshot causing the corresponding snapshot to be restored on other device(s)
40633/ 41528	User data files are not copied to the device when the service-chain template is created directly without using workflows
40697	When footer on the director updated with customized string. It shows the new footer on login window but after login, it switches back to the old default footer.
40711	Main template and service template merge fails if the configuration contains special characters
40812	Service/device template accepts invalid access-policy rule numbers like -1 and 0, which cause template commit to the appliances to fail
40975	Unable to paste password in user login page
41106/ 41122	Handle parameterized variable name if partial field is parameterized as in vni-0/3.{sv_subuint_uint}

Tracking Bug	Description
41126	GET API request by Tenant users to fetch details of a multi-tenant appliance, shows other tenant's details
41782	Under workflows/template/services/DHCP options profile Domain name filed is throwing "Invalid domain name" error while validating below input "customer1_name.local". _ in domain name should be allowed
37433	ZTP Alarms and AMQP messages are not created for replace appliance task during RMA process

Fixed Bugs in Release 20.2.1

Tracking Bug	Description
25660	Organization workflow redeploy failed after a Controller was removed.
28887	Add View icon in configuration UI screens to fetch configuration from backend and show in JSON format.
31602	Device workflow expects to provide DHCP default router and DNS servers even when DHCP is not enabled.
32368	Autogenerate the device ID when a device is created by CSV import in the Add Device workflow.
32398	Autogenerate the serial number when adding a device using CSV upload.
34071	When you edited the service bandwidth from a template, the change did not take effect.
34473	Encrypt system user password when pushing it using a template.

Tracking Bug	Description
34601	URL-based ZTP must handle IPv6 link-local address.
35172	CPEs installs routes from a hub that belongs to a different spoke group.
36620	Cannot cancel Replace Serial Number.
36894	Entitlement Summary records do not show correct data for an organization.
37008	Subscription data can be configured in a device workflow.
37039	SMS and email notifications are not sent when you enable proxy.
37269	Add VLAN tag support for uCPE interfaces in the service chain workflow.
37597	Bootstrapping failed because of an IP address conflict in staging ipsec-vpn.
37602	DHCP active leases should display no active leases instead of blank page in monitor dashboard services view.
37692	Signature list ID no longer displayed in threat exceptions after you change the IPS profile configuration under rules.
38249	Director sends the CPE out-of-sync email even after you delete notification rules are deleted.
39307	Director level alarms to be reported under Bell Icon notification.
39470	Restoring snapshot on one device when multiple devices having same snapshot caused the corresponding snapshot to be restored on other devices.
39943	Cannot open service template after you sort by name.

Tracking Bug	Description
40697	The footer on Director UI switched back to default.
40736	Add search functionality to the user-defined IPS rule screen.
41001	Do not show as OUT_OF_SYNC when there is no difference between template and appliance configuration.
41126	API GET request with a TenantSuperAdmin shows other tenants while fetching tenantDetailAppliances.
41244	When you try to create twice-napt-44 in a CGNAT rule, you cannot select the destination network in the match tab.
41350	Template and device snapshots should not bind to a specific user.
41477	Cannot create service templates using an XML payload.
41718	Service object GUI should illustrate support for port ranges.
41823	Configuration snapshots need to be protected by RBAC.
41835	If you use workflows to import a device that has invalid latitude and longitude parameters, the entry goes into the invalid state.
42161	Bootstrapping fails when the gateway IP address in a staging or post-staging template is link local.
42336	Remove the disable option in UI for terms in routing peer policy.
42383	Return device workflow bind variables response in single variables as object instead of array.
42386	Unable to log in to SteelConnect EX Director after you perform a vsh restart when authenticated using TACACS+.

Tracking Bug	Description
42437	Device import operation with invalid longitude/latitude value displays SQL nested exception.
42635	Template workflow does not validate fields for wpa-password.
42726	For SHHS, on HCN, for a newly deployed organization, family {} stanza is missing under protocols bgp {}.
42783	For some firewall policy rules created as part of an application template, the match criteria might be empty.
42818	URL filtering profile does not show the LEF profile from the common template.
42868	When you create a template whose WAN interfaces have VLANs, the variable with unit ID should be referenced instead of VLAN ID in other places in the template.
42869	Threshold alarms are not marked correctly in UI.
43134	INTERNAL_SQL_ERROR displayed when you try to log in to the slave node.
43225	When an organization name contains only numbers, the device template may not load.
43275	Onboarding a Director node may fail during staging because of conflicting IP addresses.
43330	When VSMD on an appliance crashes, applying a template may timeout, which prevents Director from writing to the database for 20 minutes.
43554	Diff view in commit template window not working when you change the sort order.
43686	Unable to open a shared service template after you perform a sort.
43725	When you create a template, the error "Configured License Year doesn't match with License Loaded"

Tracking Bug	Description
	might display.
43757	Same ParentOrgName and currentOrgName leading to Director getting stuck while starting services.
43888	Parameterize appliance description in templates.
43896	Parameterize DHCP hardware address match.
44141	Paginate ARP display in Monitor dashboard.
44142	Show all ARP entries in branch device in Monitor dashboard.
44182	SP and IDP certificate field should be in text or parameterized form in SAML profile in template.
44372	Analytics cannot be accessed with custom user role.
44434	Limit HA paired site ID to a maximum of two devices in device deploy workflow.
44572	Disable template diff generation of backup during upgrade.
44924	Cannot add interface to VNF manager using service template.
44941	When appliance upgrade fails, it is incorrectly shown as being upgraded.
45025	[vDir:serviceTemplate] : Getting RSE:malformed-message on editAdaptiveShaping.
45034	Create snapshot of current system status before reverting to previous snapshot.
45097	Director: DHCP Server Lease Profile: Log Utilization Checkbox is not shown as selected in Device even

Tracking Bug	Description
	if it is selected at template level and committed.
45203	Have velocity template the MTU of the PPPoE interface to 1492.
45484	If you clone a template from Workflows > Templates, the cloned template does not show the configurations that are added from the template configuration.
45508	Cannot configure an IPv6 static route.
45541	invalid_value: inconsistent value" error was seen because cli-ssh was getting enabled.
45546	Add Bahrain and HongKong regions in AWS geolocations.
45603	When you use SMS, external to FA is not redirecting to enter code UI page.
46336	When you create a device group for a parent organization, the staging template is not shown.
46347	When cloning a template, do not copy a redundant template.
46503	When you export a Summary Report, a CPE configured with a bandwidth of 10 Gbps is not displayed.
46560	RBAC permissions issues for Configuration > Object > WAN Network: User with role PDCO.TSA,TSECA,TO,TDO can perform all actions for all organizations in WAN Network.
46718	Fetch the objects from common templates for user-defined URL categories.
46959	If you check view diff and then click on commit to device, tasks bar does not show apply template task.
47104	For auditing, in the CLI, resetting the password captures the password in text format.

Tracking Bug	Description
47332	Shared templates are not visible through GUI.
47767	Unable to parameterize TACACS+ server IP address and authentication key in System > External AAA.
47867	CA certificate chain upload screen selects a random device.
47983	When you filter by software version, a Director query does not show the expected output result on the appliance listing screen.
43524	Large number sdwan-datapath-sla-not-met consumes lot of disk space in Director.
47065	Username and password fields should not be autopopulated.
42576	In a policy rule, under header/schedule, the custom services are listed at the bottom. They should be listed at the top before the predefined services.
38847	In the objects and connectors tab, whenever you use the search tab on the UI to search for an object, the values of the object disappear, even when we open that object.
40720	Remove option for LAN and WAN/LAN interfaces in staging template workflow interfaces section.

Fixed Bugs in Release 20.2.2

Tracking Bug	Description
34601/42161	Bootstrapping of appliance fails when the staging or post-staging template has the gateway as IPv6 link local.
11849	Cannot add DHCP-based VNI interfaces to the vnf-manager interfaces list in the GUI.

33463	Users can change Tomcat log-level without authentication.
35020	New hardware device automatically upgrades or downgrades to the software version of the faulty device during RMA replacement process.
38292	Cannot modify application tag of predefined applications. GUI does not support user-modified applications.
38697	When you configure forwarding profiles in service templates, network name is not displayed in Avoid Connection field but is displayed in Circuit Priorities field.
39703	For a Hub Controller (HCN), accessible routes in the staging IPsec VPN profile corresponding to Staging_ip_address_pool are not configured automatically by the template workflow, which causes the staging to fail.
39821	External authentication fails when AD/TACACS+ returns multiple attributes of the same type.
40975	If you configure SNMPv3 or LDAP passwords in device templates, workflows, or device configuration, you cannot paste or view passwords in the GUI.
41584	Event notifications are now rate-limited to avoid flowing down the browser when alarms are received at a high rate.
41843	Exit interface must not be mandatory in the GUI if next-hop IP address is present in static routes.
41930	When you search for rules in an NGFW policy and move a selected rule, all the rules are deleted.
42055	When Director node is running Release 20.2.1 and FlexVNF device is Release 16.1R2Sx, and when you redeploy a template from the workflow and commit it in Release 16.1R2, the FlexVNF devices removes the SLA configuration.
42769	Cannot generate implicit zone host in a suborganization using template and controller workflows.

43580	Cross-site scripting vulnerability in login screen.
43888	Parameterize appliance description in configuration templates system identification page.
44054	Security vulnerability on Director content security policy and public keys pins security header not detected for ports 80 and 443.
44481	Cloned template might not be displayed on template listing page.
44551	Director node upgrade might fail because residual appliance configuration present on Director node that was RMAed.
44744	Custom tenant role users cannot access device CLI using portal.
44984	When you do a search and then resequence security access policy rules, the rules might be lost.
45507	Status of device SPack upgrade from Director node always displays as successful, even if it fails.
45568	NAT traversal field displays undefined as in the GUI and is uneditable during SD-WAN site configuration.
46342	In the Geo-IP action, GUI must not allow configuration of more than 32 regions in the IP filtering rule to match FlexVNF restriction.
46846	Backups and snapshots must not be copied between HA-enabled Director nodes.
48065	LDAP users are not listed properly on the policy page, and GUI hangs when there are many users.
48075	Cannot view URLF profile from a decryption policy rule in the GUI.

48319	Snapshots created by a user are not visible to other users even if they have admin privilege to template and appliance corresponding to the snapshot.
48432	Virtual routers configuration screen loads very slowly in templates and appliance contexts.
48813	When you upgrade Director, appliances configurations with user accounts become unsynchronized with the Director.
48861	For email addresses, Director GUI accepts only six characters in the domain name after the dot (.).
48922	When you run bandwidth measure on the Monitor Interfaces page, it shows only SD-WAN devices with bandwidth measurement server enabled.
48931	LDAP server configuration through template workflow is missing routing instance name, so communication with LDAP server is not established.
48976	HTTP header information disclosure is missing the Expect-CT header (vulnerability).
48977	HTTP Strict Transport Security Policy (HSTS) header is missing in response headers (vulnerability).
49217	CA certificate section missing in NGFW service template.
49224	When you upgrade Director from Release 16.1R2S10.1 to Release 20.2.1, static routes configured under workflow template are missing and are not migrated to Postgres.
49282	Provide option to suppress alarm clear events through notification policies. Deselect alert on clear to suppress clear event notifications.
49327	Do not send notification emails on alarm clear condition unless it is explicitly configured in the rule.
49370	Cannot parameterize any values in the global routing instance.

49499	Appliance configuration page might not display any information.
49635	Cannot change the Director logo.
49756	LDAP Domain Name in workflow does not accept uppercase DN in the field.
49775	When you create a template with WiFi SSID name that contains special characters, a remote server exception might be displayed.
49853	After you upgrade Director node to Release 20.2.1, a negative site ID is displayed for ServiceVNF appliances.
49863	Upgrading Director node to Release 20.2.1 fails if templates contain parameterized values for loss percentage, forward loss percentage, or reverse loss percentage.
50377	Local users with role ProviderDataCenterSystemAdmin cannot get to shell prompt in shell-in-a-box.
50433	Cannot configure subinterfaces under TVI interface with mode ipsec and type eogre in the GUI, but CLI allows this configuration.
50459	After you modify an HA workflows template, it might never redeploy.
50713	The message "There is already a logged in session with username" might be displayed multiple times for each duplicate user login.
51608	When you create a notification rule, drop-down does not display list of organizations.
51612	When you are onboarding a new device using two-factor authentication and you click Claim Device in the email link, the message "No message available" might display.
51873	When ZTP fails and a FlexVNF device is in staging state, tenant super-admin user cannot upgrade or SSH to the FlexVNF device.

51889	Workflow allocates duplicate IDs to devices.
52049	Token-based external TACACS+ authentication for REST API calls can use stale tokens.
52147	Adding a VRF to a device might fail, and the error message "No valid extended community present" displays during template commit.
52276	Cannot add more than 25 service templates in device group.
52450	Director node does not load Appliance Listing page if a single quote is present in the device's location information.
52519	In Others > System > Domain Name Servers > Add Name Servers window, you cannot parameterize name server.
52530	You cannot include IKE value starting with the special characters + - = @ in a workflow device bind data.
52683	Cannot create a device workflow in Director Release 20.2.1 with URL ZTP enabled. While adding the device under URL-based ZTP tab, authentication information should be generated automatically.
52805	GUI does not list transport domains numbers in numerical order.
52879	When you export bind data from the device bind data table to a CSV file, the data in the exported file is misaligned if the values for some variables are missing. When you again import the misaligned file, some bind data values previously present are missing. This fix includes empty bind variable names in the exported file.
52971	WAN circuits information is not displayed in the SD-WAN service template in the GUI.
52974	Cannot create QoS profiles in shared service templates in Director.
53083	Importing general shared service template with parameterized organization name might fail.

53119	On a Director node, FEC and packet replication parameters might be configured when FEC or packet replication was not enabled.
53541	Routing module does not support dynamic switching between instance types in routing instances.
53610	When you redeploy an organization, zones that you created manually in the common datastore template might be deleted.
53753	Cannot associate an organization with a ServiceVNF type device.
54325	When duplicate routing instance names are present in different organization workflows, Director upgrade to Release 20.2.1 might fail.

Known Issues

The following are the known issues in Release 20.2.

Known Issues in Release 20.2

- Create appliance task is not displayed for tenant user roles.
 - In the commit template window, when you click Association and then click Download Merge Configuration, the UI does not download the file and after a while displays the 500 error.
 - For a hub controller node acting as staging controller, the staging VPN profile IP address pool is not autogenerated. You must fill the pool addresses in the bind data variables as part of device workflow.
 - On rare occasions, when you create an SD-WAN gateway in AWS using a Director device-deploy workflow instance, the creation gets stuck while booting for instance types C3, C4, D2, I2 and M4. This happens when Director attempts to configure the SRIOV setting on instance and reboots through APIs. As a workaround, use C5 and C5d instance types, which have the ENA driver as part of the AMI.
 - The SteelConnect EX Director UI is not available for the Internet Explorer, Microsoft Edge, and Safari browsers. As a workaround, use Chrome and Firefox.
 - When failover occurs, tasks currently executing on the active Director do not switch over to the redundant Director.
 - Before you enable high availability (HA), you must add the hostname or IP address of the peer Director to the `/etc/hosts` file.
 - If you add a new routing instance directly under the Appliance UI, it fails with an RPC error, because each routing instance must be associated with an organization. Note that this problem is not present when you add a new routing instance in the Template context. To add a routing instance directly in the Appliance context:
 1. Click Build in the top right corner of the Appliance Context UI.
 2. Add the routing instance.
-

3. In Others > Organization > Limits, add the newly created routing instance to the owned routing instances.
 4. Click Commit to push the new routing instance and the updated owned routing instances to the appliance.
- Bug 24998 - Issuing the **request system reset factory-reset** command from the appliance CLI or selecting "Factory Reset" on either the appliance web UI or Director UI will cause the appliance to revert to the release that the appliance was shipped with, not the current release you just upgraded. As a workaround, execute the **show system snapshots** command and then the **request system rollback to <snapshot-name>** command.

Limitations

The following are limitations in Release 20.2.

Limitations in Releases 20.2.1

- When you attach a service template to a device in a device workflow but do not attach it to the device group, the device is not displayed after you commit the service template.
- The Director UI may not open in Safari and MacOS 10.15, because the previous self-signed certificates are not compatible with the new security requirements of the Apple Safari browser. To regenerate a self-signed certificate, issue the following commands:

```
sudo su - versa
cd /opt/versa/vnms/scripts/
./vnms-certgen.sh --san example.com --san test.example.com --overwrite --storepass "<password>"
```

To regenerate CA-signed certificates:

1. Regenerate the CA signed certificates to honor the new security requirements:

```
sudo su - versa
cd /var/versa/vnms/data/certs/
keytool -import -alias tomcatserver -file {CA_CERTIFICATE}.cer -keystore tomcat_keystore.jks -storepass
<password>
```

2. Synchronize the new certificate to all the Analytics nodes:

```
cd /opt/versa/vnms/scripts
./vnms-cert-sync.sh --sync
```

Limitations in Release 20.2.2

- When you attach a service template to a device in a device workflow but do not attach it to the device group, the device is not displayed after you commit the service template.
- The Director UI may not open in Safari and MacOS 10.15, because the previous self-signed certificates are not compatible with the new security requirements of the Apple Safari browser. To regenerate a self-signed certificate, issue the following commands:

```
sudo su - versa
cd /opt/versa/vnms/scripts/
./vnms-certgen.sh --san example.com --san test.example.com --overwrite --storepass "<password>"
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<password>
```

2. Synchronize the new certificate to all the Analytics nodes:

```
cd /opt/versa/vnms/scripts
./vnms-cert-sync.sh --sync
```

- In Release 20.2.2, the Director web server (Apache Tomcat) has been upgraded to support HTTP/2. If you do not enable proxies with HTTP 2.0 and TLS 1.2, browsers automatically fall back to using the HTTP 1.1 protocol. In the newer version of Tomcat, HTTP 1.1–based REST API calls with very large payloads fail intermittently because not all the payload is provided to the backend server. This issue is observed with configuration differences windows in template workflow and template commit to appliances. For more information, see the section “Enable HTTP 2.0 on Proxies” below.
- In spoke-hub-hub-spoke (SHHS) deployments, the spoke device's preshared key (PSK) that is configured on the hub device is deleted when a template is committed to the hubs. This causes tunnels between spokes and hubs to go down. As workaround, on the Director nodes used in SHHS deployments, enable **set system preserve-appliance-changes enable true** in the Director CLI, and in the template commit window select the Auto Merge option when you commit a template to hub devices. This issue is being tracked by Bug 41198.
- In device workflows, the file selection for service chain uCPE templates in the vertical bind data screen does not work. As a workaround, always select the file drop-down list in the horizontal bind data screen. This issue is being tracked by Bug 55062.

Serial# : sr987654321 Appliance : Branch-UCPE

Variable	Value
DHCP	
uCPE-MgmtIntf_Pool_Range_Begin_IP_ap...	172.25.1.2
uCPE-MgmtIntf_Pool_Range_End_IP_apRa...	172.25.1.2
Interfaces	
Fortigate-VNF-VLAN-0-LAN-Side-Intf_ucpe...	172.18.1.1/30
Fortigate-VNF-VLAN-0-WAN-Side-Intf_ucp...	172.18.1.2/30
uCPE-Local-MgmtIntf_ucpeLocMgmtIntA...	172.25.1.1/29
Others	
Fortigate-20-2-SC_Fortigate-VNF-customda...	/custom/0000
Fortigate-20-2-SC_Fortigate-VNF-customda...	ud
UCPE	
Fortigate-20-2-SC_Fortigate-VNF-customda...	FT-License
Fortigate-20-2-SC_Fortigate-VNF-userdata...	FT.UserData

Back OK Cancel Redeploy

Enable HTTP 2.0 on Proxies

In Release 20.2.2, the Director web server (Apache Tomcat) has been upgraded to support HTTP 2.0, also called HTTP/2 or H2. Newer versions of Chrome and Firefox browsers automatically take advantage of the HTTP/2 protocol when supported by the web servers.

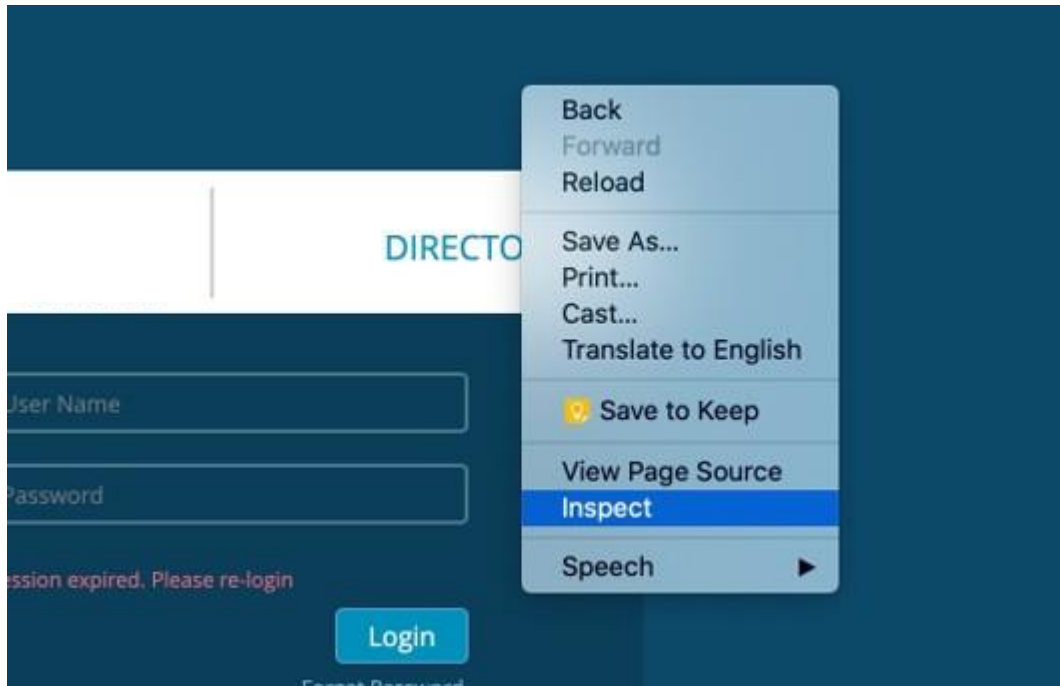
If an HTTP proxy, such as Load Balancer, HA Proxy, and NGINX, is deployed between web clients (browsers) and a Director node, you must enable HTTP/2 with TLS 1.2 on them with the following cipher set:

- TLS_ECDHE_ECDSA_WITH_AES_128_GCM_SHA256
- TLS_ECDHE_ECDSA_WITH_AES_256_GCM_SHA384
- TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256
- TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384

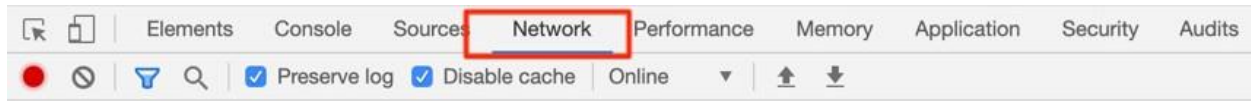
When users access the Director node using secure proxies, such as ZScaler, inspection done by the proxy of the sessions to the Director node must be bypassed or the proxy must be enabled with HTTP/2 and TLS 1.2 protocols with the above cipher set.

After you update the configuration on the proxy to enable HTTP/2, use the browser's Dev/Inspect tools to verify that the browser is using the HTTP/2 protocol:

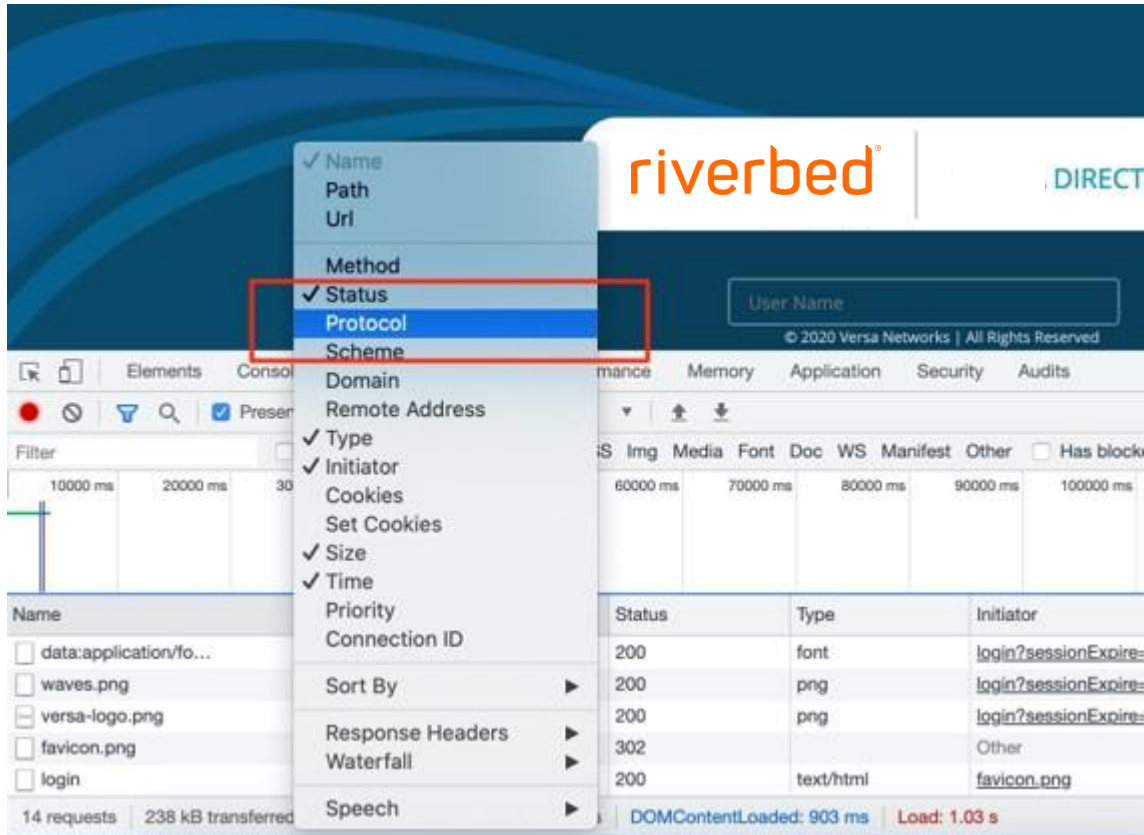
1. On the Director login page, right click and select Inspect to display the Dev/Inspect tools. The following screenshot shows how to do this in Google Chrome:



2. In the Inspect window, select the Network tab.



3. Right-click the column selector and select Protocol to display the Protocol column.



4. Reload the portal page and check the Protocol column for the H2 protocol (for the API calls made to the server).

Elements Sources Console Network Performance Security Memory Application Audits									
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Request Technical Support

To request technical support, visit support.riverbed.com. If you are contacting support for the first time, register and create an account. You can also send email to support@riverbed.com or contact your Riverbed sales account team.