



Tech Data Cloud and Automation Practice

VMware Network Virtualization Assessment Report

Prepared for: <Company Name>

Subject: vNV Output Report

Date: 1/2/2018 10:39 AM

Change Record:

Date	Revision	Description
December 12, 2017	1.0	Tech Data Initial Release

Contents

1. SUMMARY AND KEY RECOMMENDATIONS	3
1.1 Key Recommendations	4
2. NETWORK TRAFFIC DISTRIBUTION	4
3. TOP TALKERS: BY TRAFFIC TYPE	5
3.1 Top Talkers: By Workload.....	5
4. MICRO SEGMENTATION BLUEPRINT	6
4.1 Micro Segmentation (Network Flow by VLAN).....	8
4.2 Micro Segmentation (Network Flow – Continued)	9
4.3 Micro Segmentation (Network Flow – Continued)	10
4.4 Micro Segmentation (Network Flow – Continued).....	11
4.5 Micro Segmentation (Network Flow – Continued).....	12
4.6 Micro Segmentation (Network Flow – Continued).....	13
5. RECOMMENDED FIREWALL RULES	14
6. ABOUT VMWARE NSX AND VMWARE VREALIZE NETWORK INSIGHT	14
7. SECURITY IN THE DATA CENTER TODAY	14



8. THREATS TO TODAY’S DATA CENTERS.....15

9. THE SOLUTION: VMWARE NSX & MICRO-SEGMENTATION15

10. NEXT STEPS.....16

11. APPENDIX A: SUGGESTED FIREWALL RULES17



1. Summary and Key Recommendations

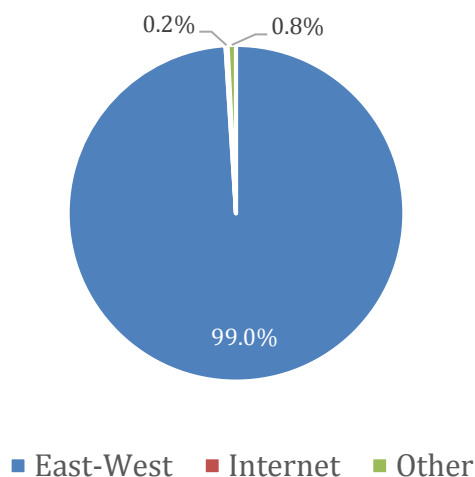
VMware vRealize Network Insight analyzes traffic flow patterns to discover potential network and security

issues, and recommend ways to optimize your data center. The tool analyzed 40.6 TB of data center traffic for

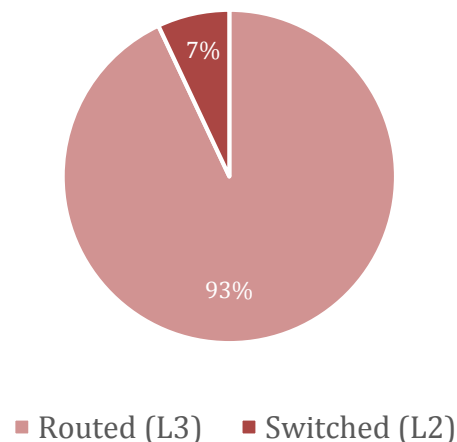
<Customer> from <Start Date > until <End Date>. The data collected during this interval is considered normal daily activity with no seasonal or peak load influences to our knowledge. If the system(s) are susceptible to peak or seasonal influences additional data analysis should be considered as a next step with detailed data collection and analysis.

- 99% (40.5 TB) of traffic flows from server to server inside the data center (East-West). East-West traffic flows often without firewalling or other security filtering, unlike North-South traffic that flows to and from the Internet and is protected by perimeter firewalls. Risk of a data breach (likelihood and impact) increases with more East-West traffic, which can be exploited and result in a breach with significant impact to the business.
- 93% (37.8 TB) of the East-West traffic is routed between different subnets/VLANs. In an optimally designed data center, the majority of network traffic is switched. Switched traffic stays on the same subnet/VLAN and eliminates hair-pinning, reduce oversubscription, increase East-West bandwidth availability, and improve performance predictability.

Security Assessment



Networking Assessment



99%

East-West

93%

Routed
(In E-W Direction)



1.1 Key Recommendations

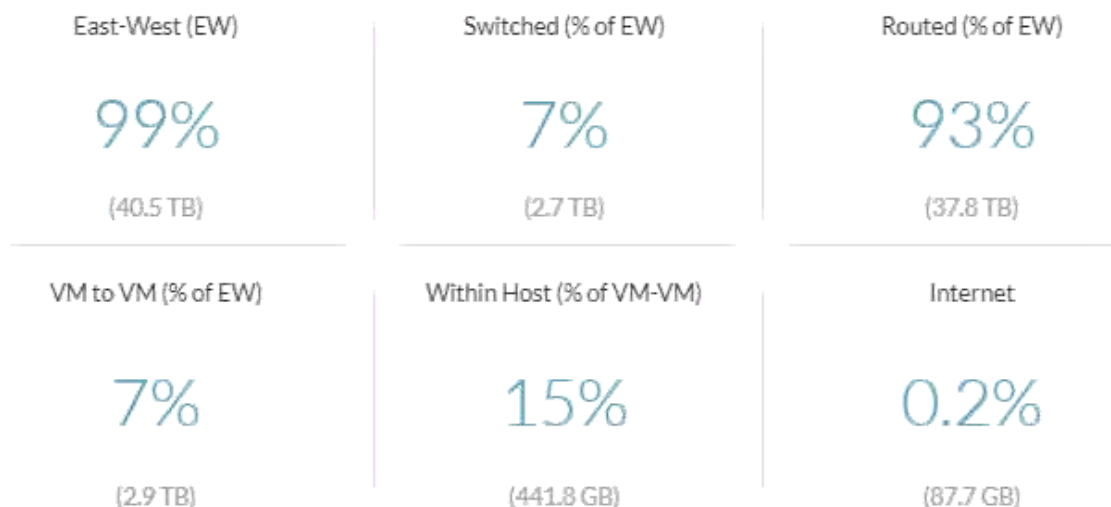
- Threats can spread via East-West traffic to a **large majority** of your infrastructure, applications, and services. **Urgently implement** VMware NSX Micro Segmentation to create a zero-trust security model
- A **large majority** of your network traffic is routed between different subnets / VLANs. **Implement** VMware NSX to localize and optimize traffic forwarding paths within and across hypervisors.

Note: The metrics in this report are derived from 1 vCenter(s) configured in vRealize Network Insight. The completeness and accuracy of the report increases as you point the tool to more of your vCenters.

2. Network Traffic Distribution

The following shows percentages of traffic distributions based on various groupings. Note that this data includes backup traffic which is categorized as East-West traffic:

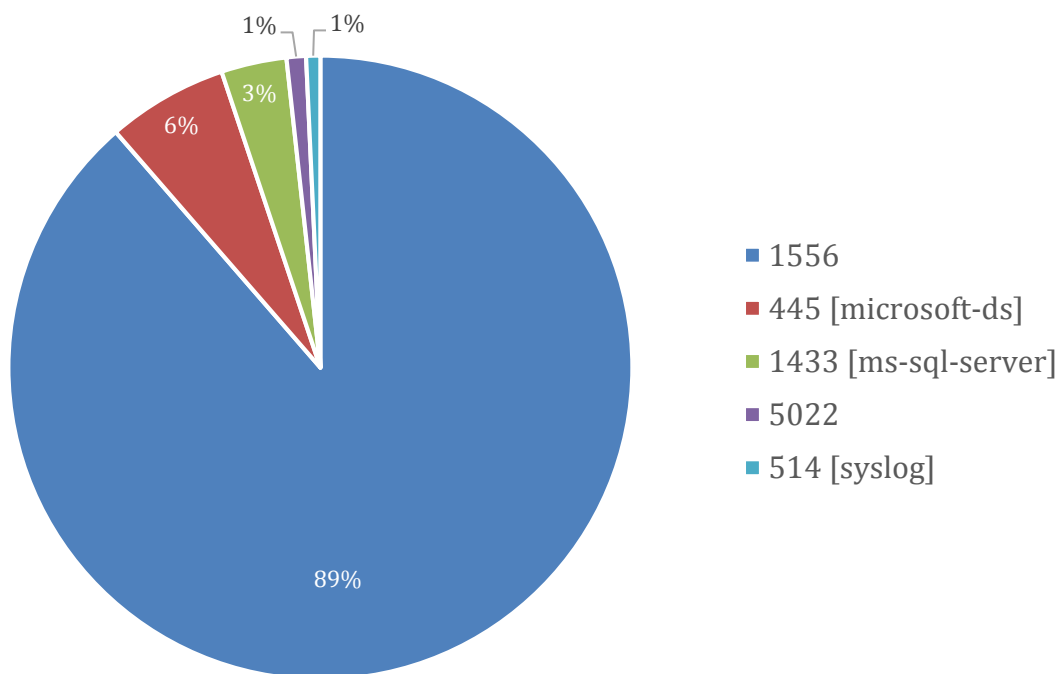
Traffic Distribution (by Total Bytes) **





3. Top Talkers: By Traffic Type

Following are details on the different types of East-West traffic that are the most prevalent inside your data center, and the volume for each type. The top five are displayed; more can be found in the vRealize Network Insight Dashboard.

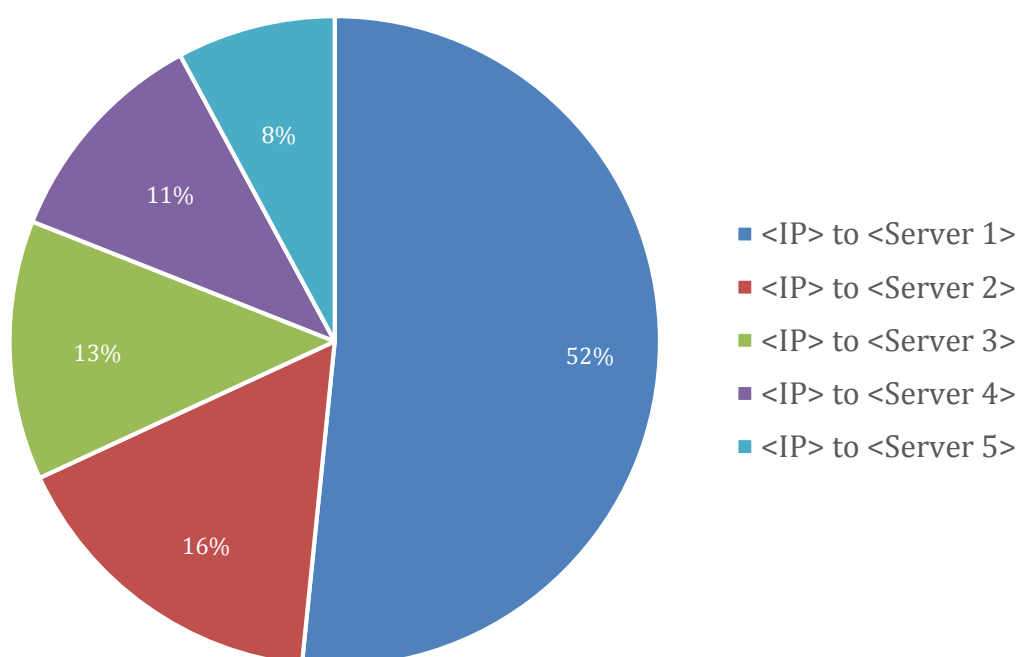


Type	Volume
1556	34 TB
445 [microsoft-ds]	2.4 TB
1433 [ms-sql-server]	1.3 TB
5022	386.1 GB
514 [syslog]	281.2 GB

3.1 Top Talkers: By Workload



Following are details on the workload pairs inside your data center that are the most chatty. Each pair includes the source and destination workload, and the volume of East-West traffic between them. The top five are displayed; more can be found in the vRealize Network Insight Dashboard.



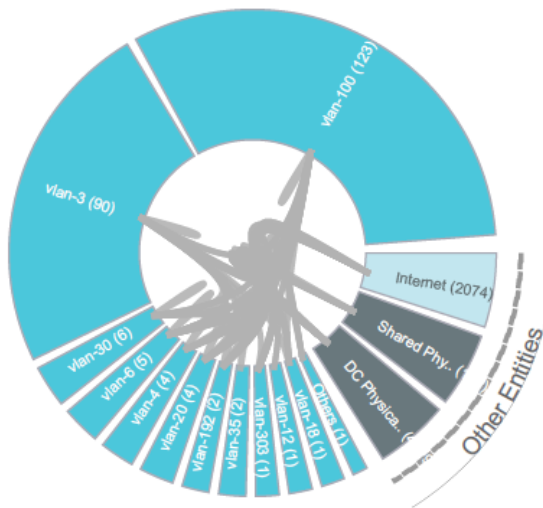
Source	Destination	Service	Volume	Traffic Type	Hosts
<IP>	<Server 1>	1556	14.4 TB	Routed	Different
<IP>	<Server 2>	1556	4.6 TB	Routed	Different
<IP>	<Server 3>	1556	3.6 TB	Routed	Different
<IP>	<Server 4>	1556	3.1 TB	Routed	Different
<IP>	<Server 5>	1556	2.2 TB	Routed	Different

4. Micro Segmentation Blueprint



Following is a micro-segmented view of your network. This model shows the East-West traffic between workloads. The workloads are categorized into logical security groups based on compute and network visibility (in this case VLAN/VXLAN).

Micro Segments (By VLAN/VXLAN)



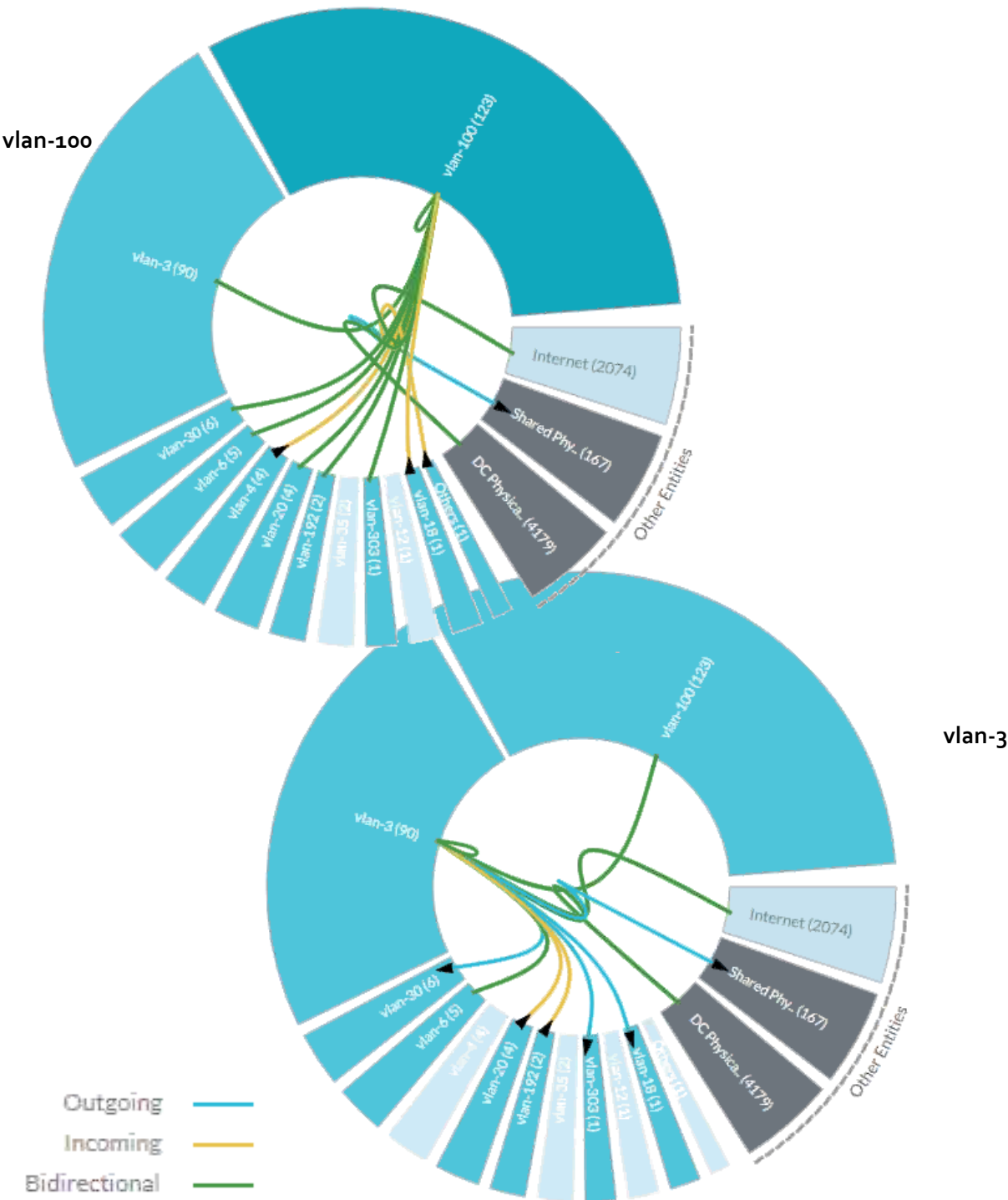
Segment Information

227 VMs

40.5 TB of Flows

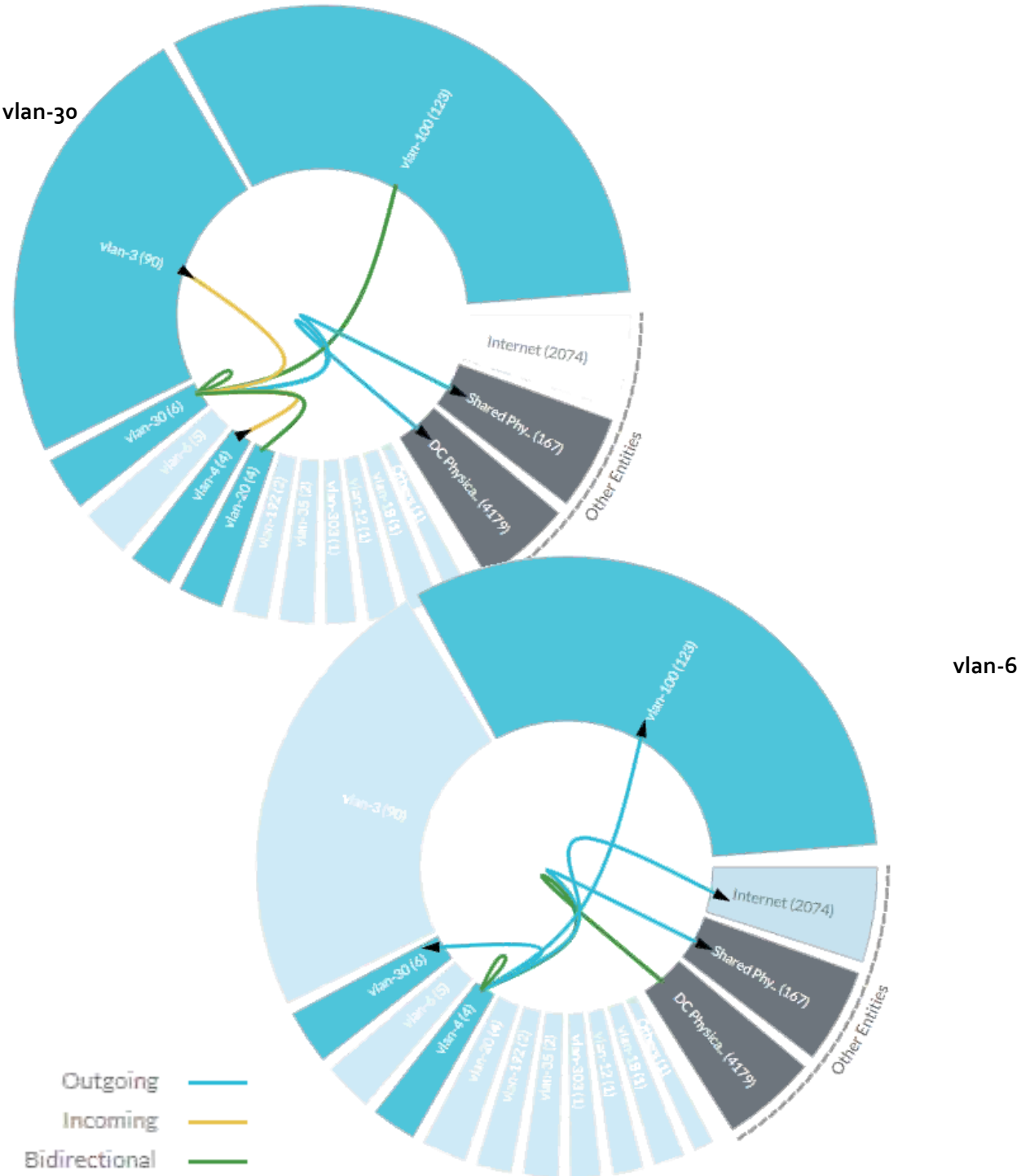


4.1 Micro Segmentation (Network Flow by VLAN)



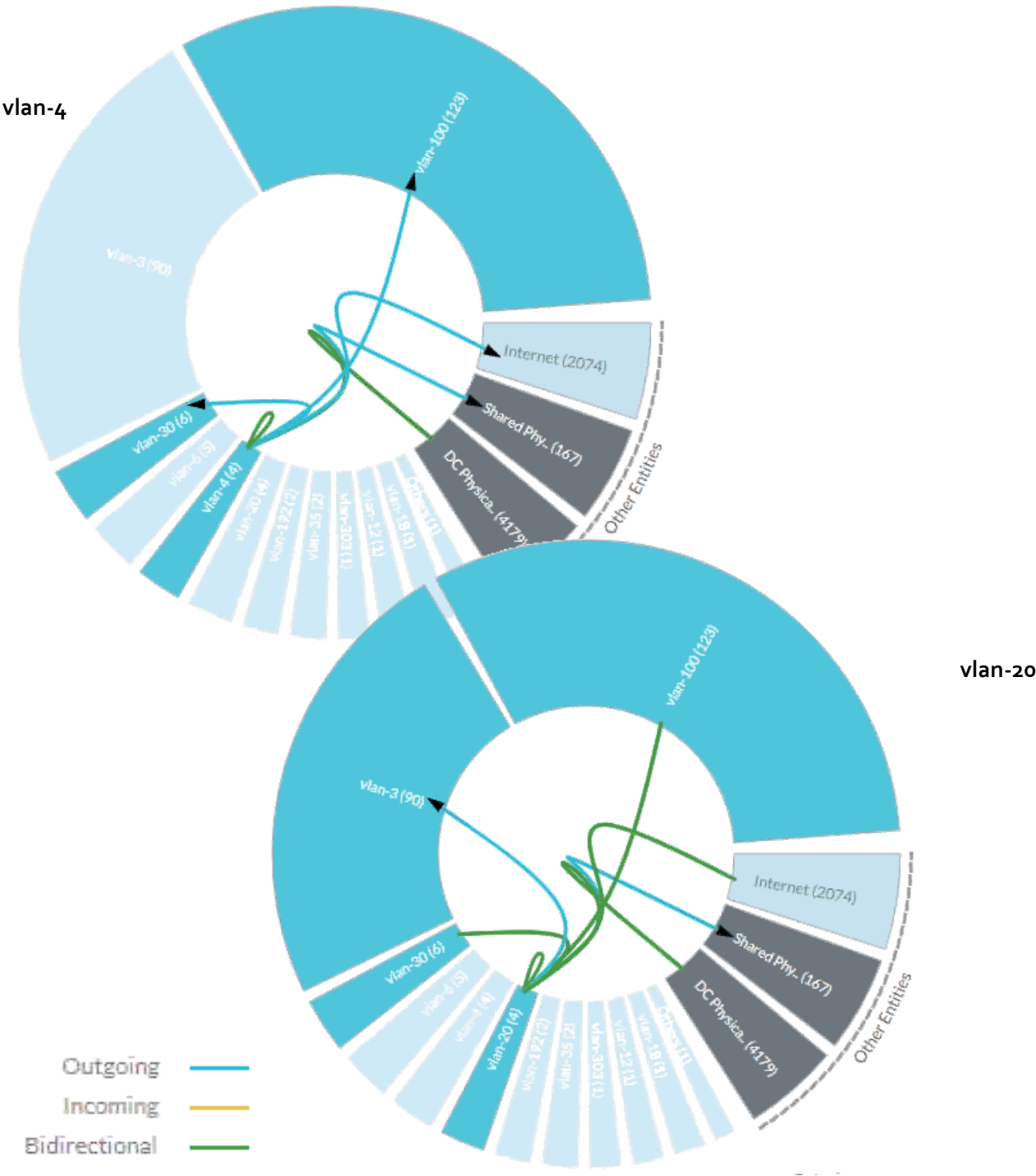


4.2 Micro Segmentation (Network Flow – Continued)



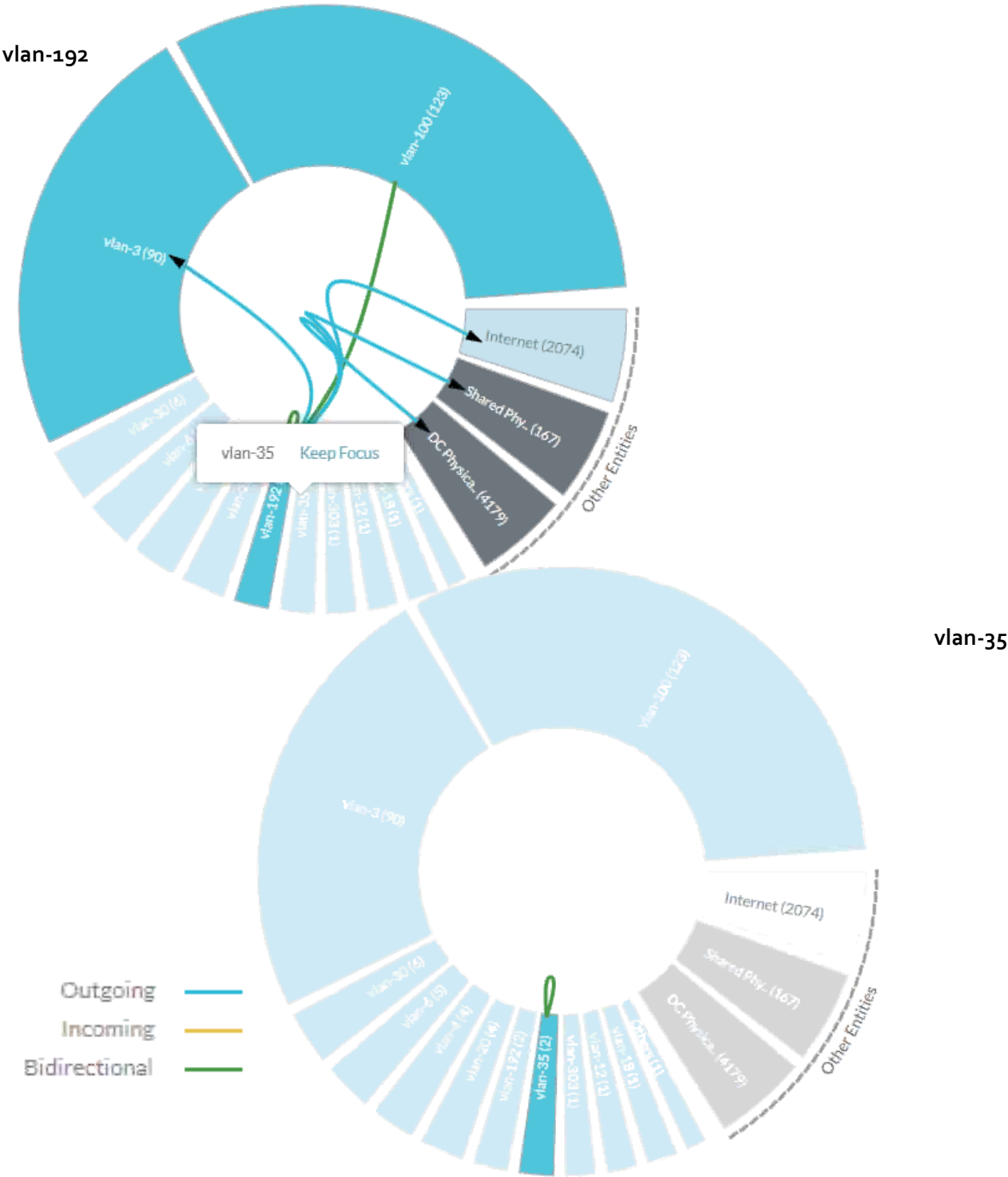


4.3 Micro Segmentation (Network Flow – Continued)





4.4 Micro Segmentation (Network Flow – Continued)



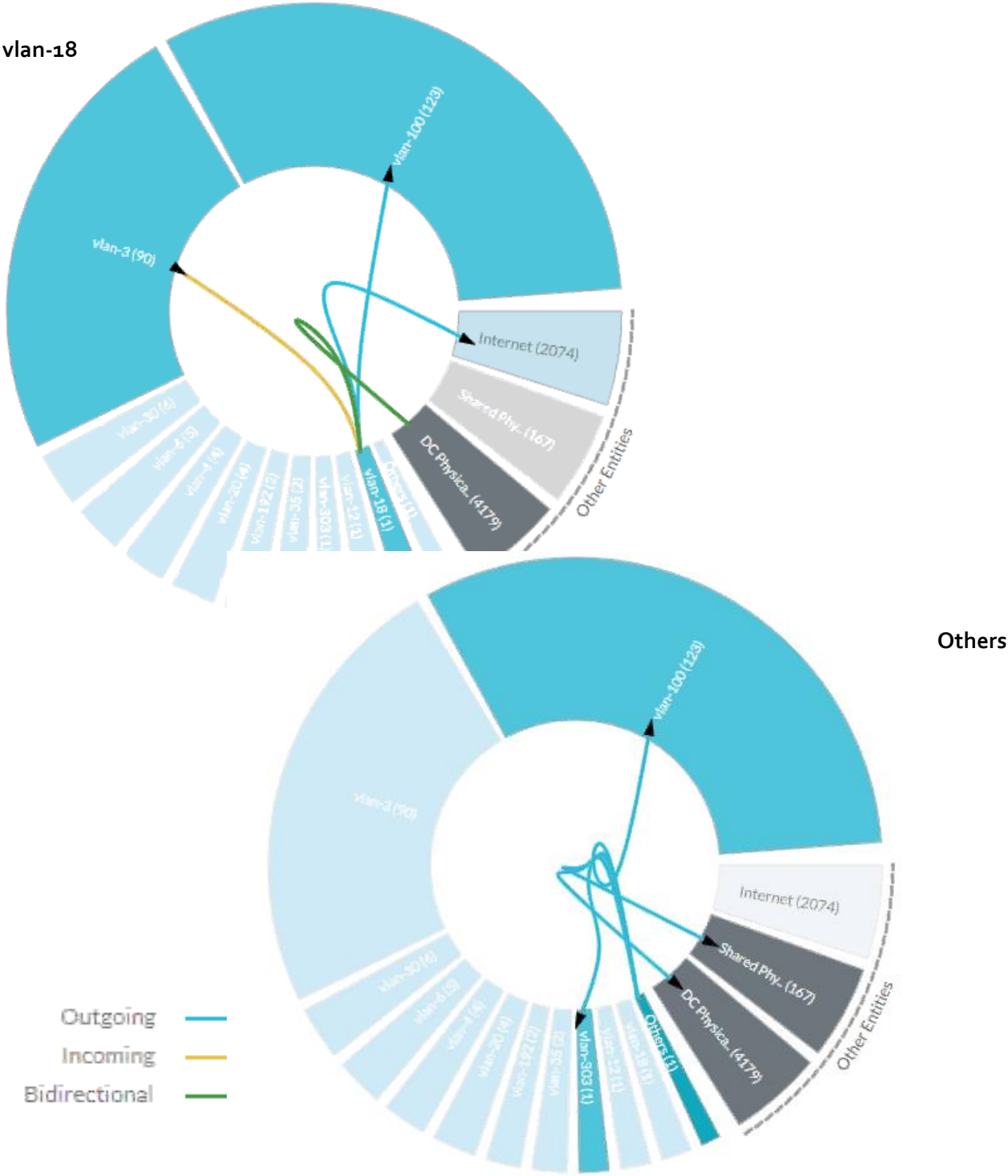


4.5 Micro Segmentation (Network Flow – Continued)





4.6 Micro Segmentation (Network Flow – Continued)





5. Recommended Firewall Rules

VMware Network Insight also includes recommendations on the firewall rules required to protect workloads and the traffic between them. The type of service accessed by the segments are also displayed. Five rules are shown below; A more comprehensive list can be found in Appendix A of this document.

Recommended Firewall Rules

Source	Destination	Services	Action
SG-vlan-18	SG-vlan-19	443 [https]	ALLOW
SG-vlan-18	Internet	123 [ntp]	ALLOW
SG-vlan-17	SG-vlan-19	3343	ALLOW
SG-vlan-17	SG-vlan-19	443 [https]	ALLOW
...	...	...	...
ANY	ANY	ANY	DENY

6. About VMware NSX and VMware vRealize Network Insight

VMware NSX is the network virtualization platform for the Software-Defined Data Center (SDDC). Because of its unique position inside the hypervisor layer, VMware NSX is able to have deep visibility into traffic patterns on the network – even when this traffic flows entirely in the virtualized part of the data center. Combining this intelligence with advanced analytics, vRealize Network Insight's Visibility and Operations Platform provides insight for IT managers, enabling them to make better decisions on what and how to protect critical assets.

7. Security in the Data Center Today

The standard approach to securing data centers has emphasized strong perimeter protection to keep threats on the outside of the network. However, this model is ineffective for handling new types of threats – including advanced persistent threats and coordinated attacks. What's needed is a better model for data center security: one that assumes threats can be anywhere and probably are everywhere, then acts accordingly. Micro-segmentation, powered by VMware NSX,



not only adopts such an approach, but also delivers the operational agility of network virtualization that is foundational to a modern software-defined data center.

8. Threats to Today's Data Centers

Cyber threats today are coordinated attacks that often include months of reconnaissance, vulnerability exploits, and “sleeper” malware agents that can lie dormant until activated by remote control. Despite increasing types of protection at the edge of data center networks – including advanced firewalls, intrusion prevention systems, and network-based malware detection – attacks are succeeding in penetrating the perimeter, and breaches continue to occur.

The primary issue is that once an attack successfully gets past the data center perimeter, there are few lateral controls to prevent threats from traversing inside the network. The best way to solve this is to adopt a stricter, micro-granular security model with the ability to tie security to individual workloads and the agility to provision policies automatically.

9. The Solution: VMware NSX & Micro-segmentation

VMware NSX is a network virtualization platform that for the first time makes micro-segmentation economically and operationally feasible. NSX provides the networking and security foundation for the software-defined data center (SDDC), enabling the three key functions of micro-segmentation: isolation, segmentation, and segmentation with advanced services. Businesses gain key benefits with micro-segmentation:

- **Network security inside the data center:** flexible security policies aligned to virtual network, VM, OS type, dynamic security tag, and more, for granularity of security down to the virtual NIC
- **Automated deployment for data center agility:** security policies are applied when a VM spins up, are moved when a VM is migrated, and are removed when a VM is deprovisioned – no more stale firewall rules.
- **Integration with leading networking and security infrastructure:** NSX is the platform enabling an ecosystem of partners to integrate – adapting to constantly changing conditions in the data center to provide enhanced security. Best of all, NSX runs on existing data center networking infrastructure.



10. Next Steps

Based on our high-level understanding of the network configuration and VMware assets consisting of one vCenter and multiple ESX hosts on <System Base> platform, we encourage <Customer> to review the findings of this vRealize Network Insight report to determine the appropriate strategy to address potential weak spots in the data center and recommend deploying NSX as part of the solution for the following benefits:

- Implement micro-segmentation: A micro-segmentation approach powered by VMware NSX can address the inadequacy, and even non-existence, of East-West security controls that affect most data centers, providing isolation and segmentation for all VM assets
- Implement NSX Distributed Firewall Rules. NSX Distributed Firewall Policies will provide flexible security controls for groups of application servers, providing granular control while drastically reducing the administrative overhead of maintaining firewall rules. VMware suggests a non-trust model, which can be adapted to fit within your operating demands.
- Reduce routed traffic: Using Virtual Distributed Switches and configuring ESX hosts on same VLAN segments, <Customer> can move to VXLANs implemented virtually and leverage the L2 switched traffic for ESX inter-communication instead of L3 routed traffic. Switched traffic helps to eliminate hair-pinning, reduce oversubscription, increase East-West bandwidth availability, and improve performance predictability.

We feel a further detailed network analysis may be beneficial also. A full review of the networking assets and network platform, as well as reviewing the <HIGHEST PROTOCOL> traffic flow (the highest percentage of traffic) and investigating any options could provide additional insights and benefits.



11. Appendix A: Suggested Firewall Rules

The following firewall rules are suggested firewall rules based on the traffic flow detected. These should be reviewed by the application and security teams for appropriateness. If NSX is installed, the approved rules can then be group together as part of an NSX Security Policy for an application and the Security Policy can be associated with a Security Group comprised of application VMs for instance. To allow for granular control of the enforcement of policies without impacting existing workloads, Security Policies in conjunction with Security Groups should be used as part of micro-segmentation strategy.

11.1.1.1 VLAN-100 Firewall rules

SOURCE	DESTINATION	SERVICES	PROTOCOLS	ACTION
SG-vlan-6	SG-vlan-100	1688, 80 [http], 49159, 49158, 40000-49999, 1433 [ms-sql-server], 139 [netbios-ssn], 49155, 445 [microsoft-ds], 135 [epmap]	TCP	ALLOW
SG-vlan-6	SG-vlan-100	389 [ldap], 88 [kerberos], 3268 [msft-gc]	TCP	ALLOW
SG-vlan-6	SG-vlan-100	389 [ldap]	UDP	ALLOW
SG-vlan-4	SG-vlan-100	53 [dns]	UDP	ALLOW
SG-vlan-303	SG-vlan-100	49159, 49158, 49155, 135 [epmap], 445 [microsoft-ds]	TCP	ALLOW
SG-vlan-303	SG-vlan-100	53 [dns], 389 [ldap], 88 [kerberos], 3268 [msft-gc]	TCP	ALLOW
SG-vlan-303	SG-vlan-100	53 [dns], 389 [ldap]	UDP	ALLOW
SG-vlan-30	SG-vlan-100	53 [dns], 88 [kerberos], 389 [ldap], 3268 [msft-gc]	TCP	ALLOW
SG-vlan-30	SG-vlan-100	53 [dns], 88 [kerberos], 389 [ldap]	UDP	ALLOW
SG-vlan-30	SG-vlan-100	49159, 49158, 40000-49999, 49155, 445 [microsoft-ds], 135 [epmap]	TCP	ALLOW
SG-vlan-3	SG-vlan-100	49159, 1583, 59762, 445 [microsoft-ds], 60911, 57741, 4444, 49158, 49279, 49157, 49673, 54998, 49155, 49154, 49272, 51527, 57070, 49400-49499, 58603, 52581, 58845, 60765, 51376, 52101, 47123, 50443, 60241, 49810, 64614, 49819, 63527, 56391, 58857, 9080, 1234, 60254, 54811, 53727, 56716, 49408, 49525, 62444, 62000-62999, 59791, 56049, 55234, 54541, 56326, 58229, 51790, 54663, 49000-49999, 8834, 49243, 55910, 50868, 1801, 1433 [ms-sql-server], 60948, 443 [https], 54156, 51285, 54550, 55000, 2105, 54153, 60435, 60830, 55887, 51960, 60312, 59843, 60157, 49234, 51721, 53865, 53348, 49198, 49351, 56615, 55409, 52659, 49229, 40000-49999, 59573, 54442, 63000-63999, 52382, 61926, 80 [http], 52542, 60045, 52426, 50523, 135 [epmap], 52428, 49616, 44444, 64537, 57280, 60612, 61027, 60695, 52832, 49213, 139 [netbios-ssn], 49178, 49332, 49294, 49209, 50938, 52717, 49600, 49325, 61430, 2383, 60978, 59878, 49160, 60503, 1688, 51353, 60000-65535, 49288, 50000-59999, 49286	TCP	ALLOW
SG-vlan-3	SG-vlan-100	137 [netbios-ns]	UDP	ALLOW



SG-vlan-3	SG-vlan-100	53 [dns], 389 [ldap], 88 [kerberos], 25 [smtp], 3268 [msft-gc]	TCP	ALLOW
SG-vlan-3	SG-vlan-100	123 [ntp], 53 [dns], 389 [ldap], 88 [kerberos]	UDP	ALLOW
SG-vlan-20	SG-vlan-100	53 [dns], 389 [ldap], 88 [kerberos], 3268 [msft-gc]	TCP	ALLOW
SG-vlan-20	SG-vlan-100	53 [dns], 389 [ldap]	UDP	ALLOW
SG-vlan-20	SG-vlan-100	1688, 49159, 49158, 40000-49999, 49155, 135 [epmap], 445 [microsoft-ds]	TCP	ALLOW
SG-vlan-20	SG-vlan-100	67 [bootps]	UDP	ALLOW
SG-vlan-192	SG-vlan-100	389 [ldap]	TCP	ALLOW
SG-vlan-192	SG-vlan-100	139 [netbios-ssn], 445 [microsoft-ds]	TCP	ALLOW
SG-vlan-192	SG-vlan-100	138 [netbios-dgm], 137 [netbios-ns]	UDP	ALLOW
SG-vlan-18	SG-vlan-100	53 [dns]	UDP	ALLOW
SG-vlan-100	SG-vlan-20	445 [microsoft-ds]	TCP	ALLOW
SG-vlan-100	SG-vlan-30	443 [https]	TCP	ALLOW
SG-vlan-100	SG-vlan-100	53 [dns], 389 [ldap], 88 [kerberos], 25 [smtp], 3268 [msft-gc]	TCP	ALLOW
SG-vlan-100	SG-vlan-100	123 [ntp], 53 [dns], 389 [ldap], 514 [syslog]	UDP	ALLOW
SG-vlan-100	SG-vlan-192	445 [microsoft-ds]	TCP	ALLOW
SG-vlan-100	SG-vlan-303	55555	TCP	ALLOW
SG-vlan-100	Internet	5671, 6401, 6400, 389 [ldap], 1433 [ms-sql-server], 21 [ftp], 443 [https], 80 [http], 1521, 3478, 5721, 4502, 25 [smtp], 2049 [nfs]	TCP	ALLOW
SG-vlan-100	Internet	123 [ntp], 53 [dns], 3478, 60000-65535, 12000, 161 [snmp], 12002, 30000-39999, 12001, 20000-29999, 50000-59999, 10000-19999	UDP	ALLOW
SG-vlan-100	DC-Physical	3640, 8097, 1455, 1454, 3630, 3631, 3632, 4963, 3633, 3634, 4965, 3635, 5813, 3651, 2320, 2317, 5820, 5821, 2319, 4990, 4991, 4992, 4993, 2328, 4507, 2327, 4508, 2325, 2324, 2323, 2321, 3652, 4500, 3653, 2329, 4506, 3670, 3671, 2342, 2341, 2339, 2338, 4519, 2336, 2333, 2332, 4994, 4510, 3663, 4995, 4511, 3664, 4996, 4512, 4997, 4515, 4516, 3681, 3682, 3683, 2353, 4529, 2346, 2345, 2343, 4527, 4528, 1033, 3211, 2364, 2363, 2362, 1030, 2361, 2360, 2358, 2357, 2355, 2354, 4532, 4533, 3686, 4534, 3687, 3688, 3209, 1044, 2374, 2373, 1041, 2372, 1040, 2371, 2370, 8909, 1039, 2369, 8908, 2368, 3213, 2366, 1034, 3212, 2365, 4545, 4546, 4560, 5410, 5411, 4564, 1055, 2386, 1054, 2385, 1053, 2384, 1052, 2383, 1050, 5409, 1049, 1048, 1047, 1046, 2377, 1045, 2376, 8912, 8913, 5405, 5406, 4559, 5407, 4571, 4572, 6751, 4573, 2397, 2396, 2395, 1063, 2394, 1062, 2393, 1061, 2392, 1060, 2391, 2390, 1058, 2389, 1057, 1056, 2387, 4565, 5897, 4566, 5898, 4567, 6746, 6748, 6747, 7611, 6764, 4586, 6763, 1077, 1076, 1073, 1072, 1071, 7602, 7601, 7604, 7605, 4591,	TCP	ALLOW



		4592, 6771, 4593, 6770, 7620, 6772, 1088, 1087, 1085, 1084, 3261, 3260, 1079, 4587, 8945, 7612, 4588, 8946, 8944, 7616, 6782, 4120, 6781, 4121, 4122, 6783, 6785, 3273, 3272, 3271, 56841, 7624, 7623, 4599, 6791, 6793, 4130, 4132, 9821, 6794, 4133, 9822, 4134, 6313, 4135, 6312, 9820, 6788, 4126, 9815, 4127, 6789, 4129, 4140, 6320, 4144, 6321, 4145, 6324, 4146, 65339, 4138, 6317, 4139, 6316, 4151, 4152, 5000, 5001, 5002, 1025-9999, 5004, 6334, 4161, 4162, 5010, 6342, 5011, 5495, 4165, 6344, 5496, 4166, 6343, 5497, 5499, 4160, 5005, 5008, 6351, 8530, 6350, 4174, 5022, 4175, 6352, 5023, 5024, 4178, 5026, 4170, 4171, 5016, 4169, 7693, 4183, 7692, 7211, 7210, 5034, 5035, 5036, 5037, 4181, 6360, 4182, 5027, 6359, 6358, 7208, 7209, 1900, 4194, 4195, 5044, 5045, 5047, 5048, 4191, 4192, 5054, 5056, 5057, 5059, 5050, 5051, 5068, 5069, 5061, 22 [ssh], 9418, 9417, 8102, 5077, 8105, 8106, 8103, 5070, 7250, 9427, 9428, 5085, 8113, 8110, 8116, 9447, 8117, 5084, 2800, 8109, 8108, 9454, 5097, 9455, 5098, 5099, 8127, 8125, 8126, 5091, 5092, 7271, 7270, 5094, 5095, 7272, 8138, 8145, 8146, 8144, 8141, 8142, 1987, 1986, 1988, 9481, 9482, 2845, 1514, 2844, 1513, 2843, 1512, 20000-29999, 9498, 8167, 15491, 8166, 8169, 8163, 8164, 55074, 3705, 3706, 8170, 10000-19999, 2866, 3717, 2865, 3718, 2864, 3719, 1532, 1531, 1530, 2869, 8185, 5906, 5907, 3721, 3722, 8193, 9043, 9044, 8194, 1558, 1556, 1554, 1553, 1552, 49211, 5927, 5928, 5929, 2411, 2410, 3742, 3744, 5922, 3745, 5923, 3746, 5924, 65003, 1583, 2430, 5937, 2427, 5938, 2426, 3753, 4600, 3754, 5932, 3755, 5933, 5934, 3757, 2429, 3758, 2428, 5950, 1107, 5949, 2432, 2431, 3763, 5941, 1108, 3780, 3781, 5960, 1121, 1120, 5959, 1117, 1116, 1599, 1115, 1598, 1597, 3773, 3774, 6801, 3776, 3777, 6802, 6805, 3779, 6804, 5958, 2463, 2462, 2461, 2460, 9098, 9097, 6817, 2458, 3305, 3304, 3303, 2455, 2454, 3301, 1122, 3300, 6810, 3785, 3786, 3787, 6816, 3309, 6815, 3308, 2474, 3320, 6828, 2468, 2467, 2466, 3312, 3796, 3797, 3798, 6827, 3319, 1154, 2485, 1153, 2484, 2483, 1150, 2480, 1149, 80 [http], 1148, 1146, 3324, 1145, 3323, 2475, 6832, 5500, 6831, 5985, 5501, 6834, 6833, 5503, 5504, 5505, 5989, 5520, 5521, 3343, 5519, 56118, 2006, 2489, 2005, 5511, 5995, 5512, 5517, 5530, 5531, 4201, 2023, 3352, 3351, 2020, 3350, 2017, 2016, 2498, 2497, 2013, 6854, 6853, 4677, 4678, 6855, 4679, 6858, 6859, 4210, 4212, 1187, 3364, 3362, 3361, 2030, 3360, 2028, 2027, 3357, 3356, 2025, 3355, 5533, 4202, 5534, 5535, 4204, 4205, 5537, 4206, 5538, 4209, 5550, 5551, 4220, 5552, 6885, 2043, 33481, 2042, 2041, 1188, 4698, 4699, 4230, 4231, 5562, 5563, 3385, 3384, 3383, 3380, 3379, 3378, 2047, 2046, 6886, 4229, 5572, 5573, 3398, 3394, 3393, 3392, 2057, 9925, 6899, 9926, 5580, 5581, 6430, 5582, 5586, 9940, 5587, 2076, 2074, 2073, 2071, 2069, 2068, 5579, 9934, 6429, 6428, 4260, 4263, 4264, 5111, 4265, 5596, 5112, 8620, 5597, 7776, 2089, 40000-49999, 2088, 2087, 2085, 2084, 2083, 2082, 5588, 4258, 4259, 6438, 7768, 5107, 135 [epmap], 8619, 5108, 5109, 6450, 4272, 4273, 4274, 4277, 4278, 2096, 2095, 5599, 7778, 7777, 6449, 4282, 4283, 7794, 7796, 4287, 7795, 5136, 7797, 4279, 5142, 5143, 5144, 9502, 5145, 5147, 9501, 5137, 5138, 5155, 5156, 5157, 8664, 5148, 9506, 5149, 9504, 9505, 5162, 9520, 9521, 9525, 9522, 5160, 5159, 9532, 6023, 6022, 6027, 9533, 6026, 9534, 9526, 9527, 6032, 6031, 8212, 5185, 6034, 5186, 6033, 5188, 6035, 5189, 8213, 6037, 5182, 5183, 464 [kpasswd], 9539, 8209, 9537, 9538, 6046, 5190, 6039, 49740, 2916, 2915, 6054, 6056, 6055, 6059, 6050, 7380, 6051, 2922, 60178, 2929, 2928, 2925, 2924, 2923, 7396, 9575, 9576, 47546, 7397, 9577, 1600, 2931, 2930, 60000-65535, 1609, 1608, 2939, 50000-59999, 1607, 1606, 2936, 2935, 2934, 9102, 9103, 9100, 9101, 9106, 8257, 9105, 8258, 2944, 1613, 1612, 2943, 1611, 1610, 2940, 1619, 2949, 1618, 2948, 1617, 2946, 1615, 2945, 1614, 9113, 9114, 6089, 9112, 6088, 9118, 9115, 1624, 49381, 56028, 3805, 1621, 3809, 9108, 49387, 9109, 1629, 2959, 1628, 49385, 2958, 2956, 1625, 9124, 9122, 9123, 9126, 9127, 9120, 1635, 1634, 2963, 2962, 1630, 49377, 9119, 49375, 2969, 49373, 2968, 3812, 1637, 2967, 1636, 3813, 2980, 2977, 1646, 2976, 1645, 3827, 3828, 2971, 49367, 3823, 1648,	
--	--	---	--



		2978, 1647, 3824, 2991, 2990, 9142, 9140, 9141, 2988, 2504, 1657, 2987, 1656, 2986, 2502, 2984, 2983, 1652, 2982, 1651, 2981, 3831, 3832, 2989, 1658, 1670, 1668, 3847, 2999, 3848, 1665, 1662, 2992, 1661, 3841, 3842, 3843, 2518, 2517, 1669, 3846, 9168, 9169, 9167, 9164, 9165, 9162, 9163, 1679, 1678, 1675, 1674, 1673, 48002, 48000, 48001, 4700, 3854, 3855, 3856, 9179, 9171, 1692, 9172, 1691, 2536, 1688, 2535, 1687, 2534, 9189, 3880, 9180, 6908, 1696, 6909, 1695, 30000-39999, 3874, 3875, 3877, 3878, 3879, 1224, 1223, 9190, 3883, 3884, 4732, 4733, 6913, 4734, 6912, 1241, 2571, 1240, 2570, 1239, 2569, 2568, 1237, 2566, 2565, 2564, 3894, 3895, 3896, 3899, 4760, 4761, 4762, 2584, 1252, 2582, 1251, 6939, 6938, 1245, 3423, 1244, 3422, 1243, 5602, 5603, 6937, 4771, 6951, 4773, 6950, 2111, 1261, 1260, 6949, 1259, 1257, 2585, 2101, 6944, 6943, 6945, 4780, 5631, 2122, 1274, 2120, 1273, 1271, 1270, 7808, 2119, 7807, 2599, 2598, 1267, 2597, 2113, 1266, 2112, 4774, 4775, 4778, 4779, 7806, 5640, 5641, 5642, 4795, 2132, 42424, 1281, 1280, 2128, 2126, 1279, 2125, 1277, 2123, 1276, 5632, 7811, 7813, 7812, 4788, 4789, 5637, 5638, 5639, 5650, 5651, 7831, 7830, 3474, 3473, 2142, 3472, 2141, 2140, 2138, 2137, 2136, 1288, 1287, 5643, 7822, 4796, 7821, 4799, 6979, 6978, 7842, 7841, 3002, 3001, 3000, 1299, 5655, 5656, 5657, 7851, 7850, 6522, 5675, 7852, 2166, 2165, 3011, 3494, 3010, 3493, 3009, 3008, 3007, 3006, 7843, 7860, 5682, 5683, 7862, 5200, 6533, 5201, 6532, 5686, 7863, 5202, 2177, 2176, 3023, 2175, 3021, 2174, 3020, 2173, 2172, 2171, 2170, 3019, 3018, 3017, 3016, 2169, 3015, 2168, 5676, 7855, 6524, 5677, 6523, 7856, 7858, 2180, 5690, 4360, 5691, 4361, 7871, 4362, 5694, 7873, 5210, 7872, 4365, 4366, 2185, 2184, 3028, 2179, 4356, 5687, 7866, 4357, 5204, 4358, 7868, 5205, 5206, 5208, 5209, 6551, 4373, 6550, 4374, 6552, 6555, 3044, 3043, 3042, 4367, 6546, 7877, 6545, 7876, 6560, 4382, 4383, 4384, 6561, 6563, 8744, 3048, 3047, 6557, 4379, 6556, 7403, 7406, 7407, 6571, 6572, 4396, 4397, 139 [netbios-ssn], 8745, 7417, 8746, 7416, 6581, 9612, 7435, 9611, 3079, 3076, 3075, 3074, 6580, 5261, 5262, 3080, 8771, 49434, 3083, 5260, 7437, 7436, 49431, 5273, 9631, 5274, 6122, 6121, 8787, 8788, 6123, 9632, 7457, 6126, 8786, 6125, 3098, 3097, 3096, 7448, 6117, 54801, 7447, 6119, 6118, 7461, 6130, 8798, 8799, 8315, 7460, 7458, 6142, 6144, 6143, 8325, 7477, 8326, 7476, 7478, 64624, 6140, 6139, 6138, 8316, 8332, 8333, 8336, 8337, 8334, 6159, 9665, 9666, 6164, 6163, 9675, 6165, 6168, 8347, 9678, 6167, 9676, 6169, 8346, 9677, 6160, 8340, 1701, 8354, 9685, 9686, 8353, 9684, 1712, 1711, 9697, 9698, 6182, 6181, 9690, 9691, 1723, 1722, 1721, 1720, 3900, 3901, 6197, 6196, 6198, 3915, 3916, 1739, 1738, 3910, 1737, 7058, 7051, 7052, 1745, 3924, 1744, 3925, 1743, 3926, 1742, 3927, 3920, 3921, 3922, 3935, 1755, 3937, 3930, 3931, 3932, 3934, 7071, 7072, 2613, 2612, 4804, 3957, 2624, 3958, 2623, 4808, 4809, 3950, 3951, 3952, 2629, 4801, 2628, 4802, 2627, 4803, 3956, 2636, 4815, 2635, 2634, 1302, 4818, 1301, 4819, 1300, 1784, 2630, 1783, 4810, 3964, 3965, 4813, 2637, 4814, 2647, 1315, 2646, 1314, 4828, 4829, 1312, 1311, 2641, 2640, 4820, 1319, 1318, 1317, 2648, 1330, 1327, 4837, 1326, 1325, 2656, 4839, 2655, 2652, 2651, 1329, 3507, 4835, 3506, 4836, 1338, 4848, 1337, 4849, 54598, 1331, 4840, 4841, 4842, 4845, 4846, 4847, 2683, 2681, 3527, 2679, 2678, 2694, 2210, 3541, 3540, 2691, 3538, 5717, 2206, 5718, 2205, 2688, 2203, 2687, 2202, 2684, 4862, 4863, 5711, 5712, 5713, 2209, 2208, 3539, 5716, 2221, 3552, 2220, 1372, 1371, 1370, 7907, 3548, 1369, 3547, 2699, 3546, 2698, 1367, 1366, 3543, 2695, 3542, 5721, 5722, 7901, 5724, 5725, 38066, 4891, 4892, 4893, 2232, 1385, 3563, 2231, 1384, 3560, 1381, 1380, 2229, 2228, 3559, 3558, 49191, 2226, 2225, 2224, 1377, 3555, 1376, 3554, 2222, 1375, 3553, 4400, 4401, 4406, 4407, 2243, 2242, 2241, 1391, 1390, 3569, 3568, 1389, 3565, 1386, 3564, 4896, 4412, 4897, 4413, 4898, 4414, 3585, 3101, 3584, 3100, 3581, 3580, 3579, 55029, 4422, 4423, 6600, 49178, 3596, 3112, 3595, 3594, 3591, 3590, 3106, 3589, 3105, 3104, 3587, 3586, 3102, 6612, 6611, 49166, 4436, 4437, 6615, 4453, 4454, 3122, 3121, 3120, 2273, 2271, 2270, 3118, 3599, 2267, 3113, 51488, 4448, 4449, 4460,	
--	--	--	--



		4461, 4462, 4463, 3133, 3132, 2285, 64327, 2284, 2283, 4455, 6634, 4456, 6636, 4458, 6635, 4459, 5309, 4470, 5320, 5321, 4474, 5322, 4475, 6654, 4476, 3145, 64337, 3143, 3141, 3140, 3137, 3136, 3135, 8824, 8825, 5799, 7978, 7977, 5316, 4469, 8826, 4480, 7510, 4001, 3154, 3153, 3151, 3147, 3146, 7503, 10123, 7505, 4479, 7504, 5328, 5329, 7509, 5340, 5341, 4011, 5342, 5343, 5344, 5345, 3167, 5351, 7530, 6682, 5352, 5353, 7534, 7533, 3178, 3175, 3174, 32355, 3168, 9704, 8858, 5347, 5348, 5349, 7529, 9709, 10102, 8859, 5360, 6212, 8876, 9723, 5366, 6213, 5367, 3184, 3183, 3182, 3179, 6207, 5359, 6206, 8882, 5371, 8883, 5372, 4042, 8881, 4043, 6220, 9733, 4044, 6223, 5375, 5376, 5377, 5378, 3197, 5370, 6216, 6215, 5369, 8877, 9724, 6217, 6219, 9741, 7563, 6232, 7562, 7564, 6233, 9742, 5389, 445 [microsoft-ds], 7558, 6227, 6229, 7559, 6228, 4064, 4065, 9756, 5390, 9746, 9747, 8432, 9766, 9767, 9757, 9771, 10082, 9772, 7598, 9775, 6269, 7599, 6261, 6260, 6259, 9768, 9784, 4095, 4096, 4097, 8451, 6276, 9783, 6278, 6277, 6279, 6270, 443 [https], 6271, 1813, 1812, 6285, 6284, 6287, 9315, 9314, 6281, 6280, 6283, 6282, 54966, 9322, 8476, 9323, 7147, 7146, 9327, 9324, 7149, 7148, 9319, 9318, 8000, 9331, 9332, 7158, 9338, 7159, 9328, 49159, 1854, 1853, 49158, 49157, 49156, 49155, 49154, 49153, 2705, 2704, 32722, 2703, 8025, 7179, 7174, 7173, 2716, 7189, 7188, 8039, 7181, 7183, 7185, 7184, 61616, 3306 [mysql], 2729, 7198, 7199, 7190, 8040, 2735, 2734, 2731, 2730, 2736, 8057, 9389, 8056, 9384, 9385, 2744, 2743, 2742, 2741, 1418, 1417, 1416, 1426, 2757, 1425, 1424, 3601, 3600, 1421, 1420, 3609, 2759, 2758, 8079, 8078, 8071, 8070, 8076, 2766, 3611, 3610, 2763, 2762, 8080, 1448, 3626, 1447, 3625, 1446, 3624, 1443, 3621, 1442, 3620, 2773, 1441, 2772, 5800, 5801, 3629		
SG-vlan-100	DC-Physical	9300, 9101, 8611, 1780, 1186, 1263, 1581, 9340, 10000-19999, 1577, 1411, 1058, 1056, 1618, 1218, 5353, 137 [netbios-ns], 5355, 40000-49999, 1076, 1791, 1471, 1030, 38293, 1624, 51690, 67 [bootps], 1346, 1542, 1267, 1342, 1947, 135 [epmap], 2638, 1900, 3343, 1285, 56790, 1284, 1042, 21328, 20514, 1082, 1711, 1797, 1037, 1354, 1672, 48002, 1025-1999, 20000-29999, 1713, 1132, 161 [snmp], 1374, 1175, 1690, 1491, 1490, 1448, 1600, 1402, 1049, 1687, 138 [netbios-dgm], 1366, 60000-65535, 3422, 1089, 1243, 50000-59999, 3702	UDP	ALLOW
SG-vlan-100	SG-vlan-3	49319, 48107, 49318, 48108, 48105, 48106, 49315, 49314, 48103, 48104, 49159, 445 [microsoft-ds], 57865, 50394, 48101, 49158, 48102, 49156, 49155, 48100, 52738, 49272, 47128, 49307, 49305, 47124, 49303, 49302, 53791, 49266, 49200-49299, 56826, 49259, 49491, 50053, 50178, 56950, 50059, 49256, 20000-29999, 50336, 51546, 53601, 51549, 41002, 60938, 57492, 60941, 50340, 51552, 51555, 49000-49999, 49242, 3700, 49240, 1433 [ms-sql-server], 60955, 2500, 49235, 50237, 49199, 49231, 49195, 49229, 49225, 49100-49199, 40000-49999, 56064, 1030, 60958, 49181, 52382, 80 [http], 49180, 56067, 53597, 49223, 49189, 49300-49399, 49188, 49187, 49220, 135 [epmap], 49186, 49215, 56072, 49170, 49179, 49212, 49575, 50137, 49177, 49295, 49173, 49206, 20006, 48100-48199, 49161, 1688, 60000-65535, 49169, 50422, 49201, 49288, 49321, 50000-59999, 52842, 49166, 49163, 49162	TCP	ALLOW
SG-vlan-100	SG-vlan-3	137 [netbios-ns]	UDP	ALLOW
SG-vlan-100	SG-vlan-100	5022, 7444, 64036, 9500, 9501, 64114, 49159, 1433 [ms-sql-server], 445 [microsoft-ds], 10000-19999, 443 [https], 50073, 49270, 59649, 2105, 464 [kpasswd], 56651, 59568, 49158, 60034, 49157, 49233, 49155, 49154, 49153, 64089, 61090, 40000-49999, 49400-49499, 21 [ftp], 5150, 55652, 63000-63999, 80 [http], 55653, 5985, 54327, 55339, 49584, 59618, 1947, 135 [epmap], 49263, 49184, 7022, 49815, 64056, 8237, 59584, 3343, 61466, 8190, 58574, 61468, 61824, 59625, 53364, 53246, 9080, 59667, 51222, 59622, 5357, 49213, 49410, 139 [netbios-ssn], 49178, 49970, 60097, 50217, 64050, 59628, 49804, 49206, 61753, 62000-62999, 58580, 49409, 20006, 49160, 1688, 53252, 53257, 60000-65535, 51234, 789,	TCP	ALLOW



		50000-59999, 10443, 1801		
SG-vlan-100	SG-vlan-100	64694, 50728, 63244, 64576, 3343, 64953, 56396, 63701, 54174, 61964, 55381, 51564, 52574, 55884, 60310, 52777, 60100-60199, 52415, 54911, 50219, 49525, 137 [netbios-ns], 40000-49999, 61896, 61512, 64902, 62000-62999, 57172, 57294, 55696, 67 [bootps], 64400-64499, 56822, 138 [netbios-dgm], 60000-65535, 60146, 59337, 57718, 49222, 49000-49999, 50000-59999, 60383, 60162, 135 [epmap], 53417, 64200-64299	UDP	ALLOW
SG-vlan-100	DC-Physical-Shared	3269 [msft-gc-ssl], 53 [dns], 389 [ldap], 88 [kerberos], 514 [syslog], 25 [smtp], 2049 [nfs], 3268 [msft-gc]	TCP	ALLOW
SG-vlan-100	DC-Physical-Shared	123 [ntp], 53 [dns], 389 [ldap]	UDP	ALLOW
SG-vlan-100	SG-vlan-6	123 [ntp]	UDP	ALLOW
SG-vlan-100	SG-vlan-3	123 [ntp]	UDP	ALLOW
Others	SG-vlan-100	1433 [ms-sql-server]	TCP	ALLOW
Internet	SG-vlan-100	65203, 58231, 59683, 59682, 59680, 58074, 443 [https], 54672, 54671, 50991, 50994, 52138, 50995, 64240, 53509, 64961, 40000-49999, 64964, 64128, 64965, 58406, 49180, 58368, 53512, 53513, 65290, 52947, 52944, 9443, 44444, 52948, 59068, 21725, 54896, 56993, 54059, 59948, 25 [smtp], 59072, 49 [tacacs], 59071, 62837, 53896, 60000-65535, 53899, 54669, 55758, 50000-59999, 53898	TCP	ALLOW
Internet	SG-vlan-100	64297, 49974, 63664, 2055, 61785, 514 [syslog], 52172, 10000-19999, 50072, 53463, 52393, 53461, 55689, 49972, 54516, 30000-39999, 49212, 52998, 49471, 50715, 123 [ntp], 64321, 12000, 40000-49999, 54044, 55237, 60000-65535, 53695, 49202, 12004, 49200, 50000-59999, 12003, 33448	UDP	ALLOW
DC-Physical	SG-vlan-100	17960, 5022, 64036, 20694, 49434, 1583, 42803, 62775, 63743, 54471, 445 [microsoft-ds], 86 [mfcobol], 62659, 42801, 28858, 58832, 54352, 55568, 36004, 33771, 49553, 30000-39999, 63180, 58715, 65494, 6002, 14343, 42231, 62785, 63633, 63634, 59376, 5150, 53154, 12724, 45187, 55339, 14224, 63191, 63070, 51778, 53717, 45183, 12721, 53836, 65264, 808, 64056, 63087, 11280, 593 [http-rpc-epmap], 62791, 62670, 64971, 62673, 17380, 64732, 62679, 58179, 9080, 51660, 50573, 6007, 6008, 64050, 63081, 58859, 54816, 60491, 59708, 59828, 8443, 63890, 36691, 36693, 64867, 28722, 18361, 58866, 51793, 50466, 49883, 52885, 54948, 15417, 59719, 15415, 53979, 62690, 64078, 62572, 44508, 43777, 59162, 60827, 1434 [ms-sql-m], 443 [https], 59603, 56698, 49191, 49190, 61127, 464 [kpasswd], 22 [ssh], 27282, 53629, 49196, 55805, 49195, 64089, 65059, 63314, 63319, 54046, 1028, 80 [http], 1027, 49180, 1026, 29599, 50488, 5985, 53754, 64080, 49188, 51218, 18106, 49185, 52427, 18108, 9443, 27829, 64097, 28916, 50806, 49615, 54609, 49613, 63202, 62597, 49852, 3343, 63325, 63205, 65507, 55384, 34129, 49293, 55266, 34127, 51222, 17901, 38962, 49178, 38964, 59508, 49296, 54739, 8003, 49 [tacacs], 18445, 27838, 28927, 50937, 56919, 58541, 2020, 3351, 49608, 62923, 62803, 54182, 49160, 60000-65535, 59875, 50389, 49289, 49167, 50000-59999, 49159, 59762, 63106, 65526, 2030, 1061, 9341, 59087, 49959, 52690, 33257, 12559, 33255, 62808, 29664, 28695, 51003, 49158, 4444, 49157, 61166, 49156, 9339, 32848, 49155, 53304, 53546, 49154, 49153, 49826, 49825, 12561, 63476, 21274, 63117, 64327, 49400-49499, 21 [ftp], 49828, 62703, 53793, 62818, 53670, 52224, 54884, 52222, 51136, 53318, 54408, 63001, 49259, 14154, 64337, 57121, 57242, 62711, 61616, 49370, 51260, 28674, 3306 [mysql], 49376, 44483, 20000-29999, 49253, 29084, 49250, 29083, 17431, 49804, 1090, 64100, 37021, 63012, 4001, 62288, 61870, 4003, 49247, 62600, 9010, 62000-62999, 18080, 62726,	TCP	ALLOW



		29772, 51032, 29770, 60666, 59312, 3389, 789, 53339, 52005, 49000-49999, 12300, 56605, 9389, 63142, 63200-63299, 64599, 49358, 64114, 14253, 28536, 1433 [ms-sql-server], 28779, 62731, 57265, 63945, 53580, 10000-19999, 57382, 54673, 28771, 56974, 55880, 4004, 54316, 14136, 56615, 13724, 49230, 64120, 42156, 8189, 63031, 63153, 42158, 61090, 49225, 64367, 20706, 40000-49999, 62623, 62503, 53470, 63000-63999, 26000, 50761, 49345, 54327, 49584, 49342, 49220, 135 [epmap], 2638, 63042, 48008, 49218, 49217, 61420, 62751, 62631, 61421, 52392, 57040, 64937, 53364, 57964, 54573, 1556, 52273, 56992, 33792, 28630, 5357, 139 [netbios-ssn], 48000, 49574, 54217, 49573, 49210, 30600, 17501, 49571, 49329, 64385, 62760, 63850, 49203, 49324, 62884, 64028, 8080, 62768, 57171, 62647, 8084, 62639, 1688, 60224, 53379, 54588, 53932, 5005, 54108, 10443, 51759, 50548, 51999		
DC-Physical	SG-vlan-100	62097, 63622, 60238, 60235, 55687, 60232, 162 [snmptrap], 62781, 63750, 49304, 49302, 61575, 63755, 57193, 62669, 62429, 61219, 60128, 54005, 49300, 52504, 64282, 59380, 61469, 50451, 60377, 60496, 49650, 49892, 60492, 49408, 62200, 161 [snmp], 64501, 59398, 60938, 62569, 63659, 62207, 56320, 60266, 49642, 52524, 60383, 59839, 64870, 61362, 64874, 64634, 64876, 64878, 55362, 62217, 55360, 49193, 56216, 61917, 57665, 59842, 60398, 49872, 61122, 60396, 50599, 60394, 49870, 64193, 60030, 58639, 1814, 59606, 60392, 1813, 1812, 49626, 65178, 64880, 61493, 49744, 62100, 61374, 64884, 49742, 62466, 62468, 60716, 49860, 60284, 60162, 49187, 64082, 57319, 49185, 64084, 65052, 64097, 63562, 49731, 3343, 62359, 59747, 60852, 53400, 54851, 902 [ideafarm-door], 60971, 55148, 50378, 61262, 60000-60999, 49606, 63571, 63692, 63694, 49841, 49962, 64546, 64788, 64667, 59198, 62127, 57694, 62129, 49608, 54065, 60743, 138 [netbios-dgm], 57695, 60000-65535, 61156, 49960, 50000-59999, 61152, 49286, 49956, 49711, 63587, 49951, 58550, 54071, 57463, 60509, 57342, 57469, 57465, 50156, 56014, 49158, 54878, 53424, 750 [kerberos-iv], 61291, 49945, 49822, 49942, 59650, 65415, 61612, 49709, 67 [bootps], 57118, 61298, 51499, 56944, 64210, 49932, 63248, 2055, 65427, 60409, 51263, 52118, 61061, 62161, 49924, 62841, 58584, 49808, 49928, 56289, 3389, 59314, 49000-49999, 64474, 62850, 61883, 61763, 58353, 64910, 49900-49999, 63825, 51041, 60677, 58355, 53228, 49355, 51726, 61083, 5353, 63398, 137 [netbios-ns], 63158, 40000-49999, 61537, 50082, 54683, 52261, 53478, 52023, 59699, 56749, 62195, 64493, 63285, 63286, 63287, 49216, 59465, 63965, 64019, 64932, 62756, 63845, 60218, 51187, 52953, 51741, 54337, 53805, 63040, 64021, 64022, 64143, 61792, 61794, 61431, 53370, 500 [isakmp], 51193, 54464, 57974, 61309, 57976, 54467, 57972, 51511, 52723, 57978, 63290, 52725, 57739	UDP	ALLOW
DC-Physical	SG-vlan-100	995 [pop3s], 587 [submission], 3269 [msft-gc-ssl], 53 [dns], 389 [ldap], 88 [kerberos], 25 [smtp], 2049 [nfs], 110 [pop3], 3268 [msft-gc]	TCP	ALLOW
DC-Physical	SG-vlan-100	123 [ntp], 53 [dns], 389 [ldap], 88 [kerberos], 514 [syslog], 111 [sunrpc]	UDP	ALLOW



11.1.1.2 VLAN-3 Firewall Rules

SOURCE	DESTINATION	SERVICES	PROTOCOLS	ACTION
SG-vlan-6	SG-vlan-3	41002, 40000-49999, 445 [microsoft-ds], 135 [epmap]	TCP	ALLOW
SG-vlan-3	Internet	5671, 6401, 6400, 389 [ldap], 9352, 443 [https], 80 [http], 1521, 22 [ssh], 3478, 6403, 5721, 6402	TCP	ALLOW
SG-vlan-3	Internet	123 [ntp], 4793, 40000-49999, 59583, 10000-19999, 443 [https], 51240, 3478, 3544, 60000-65535, 49487, 20000-29999, 50000-59999	UDP	ALLOW
SG-vlan-3	SG-vlan-100	49159, 1583, 59762, 445 [microsoft-ds], 60911, 57741, 4444, 49158, 49279, 49157, 49673, 54998, 49155, 49154, 49272, 51527, 57070, 49400-49499, 58603, 52581, 58845, 60765, 51376, 52101, 47123, 50443, 60241, 49810, 64614, 49819, 63527, 56391, 58857, 9080, 1234, 60254, 54811, 53727, 56716, 49408, 49525, 62444, 62000-62999, 59791, 56049, 55234, 54541, 56326, 58229, 51790, 54663, 49000-49999, 8834, 49243, 55910, 50868, 1801, 1433 [ms-sql-server], 60948, 443 [https], 54156, 51285, 54550, 55000, 2105, 54153, 60435, 60830, 55887, 51960, 60312, 59843, 60157, 49234, 51721, 53865, 53348, 49198, 49351, 56615, 55409, 52659, 49229, 40000-49999, 59573, 54442, 63000-63999, 52382, 61926, 80 [http], 52542, 60045, 52426, 50523, 135 [epmap], 52428, 49616, 44444, 64537, 57280, 60612, 61027, 60695, 52832, 49213, 139 [netbios-ssn], 49178, 49332, 49294, 49209, 50938, 52717, 49600, 49325, 61430, 2383, 60978, 59878, 49160, 60503, 1688, 51353, 60000-65535, 49288, 50000-59999, 49286	TCP	ALLOW
SG-vlan-3	SG-vlan-100	137 [netbios-ns]	UDP	ALLOW
SG-vlan-3	DC-Physical	4970, 1462, 2790, 2306, 2548, 5816, 2305, 2789, 2547, 4728, 5817, 2788, 4729, 2303, 2302, 2300, 2541, 30000-39999, 4720, 4723, 4724, 2308, 2307, 2549, 1473, 1472, 4738, 5827, 6917, 2317, 5828, 2316, 6918, 2314, 3402, 1466, 3401, 2311, 3400, 2310, 1463, 4730, 3643, 4732, 3644, 4733, 4734, 5824, 3409, 4735, 4736, 3408, 3647, 4737, 3660, 1484, 2331, 1483, 1480, 5838, 5839, 1479, 2326, 2322, 4741, 4742, 4500, 4743, 4501, 4744, 4502, 4986, 3656, 3657, 5837, 5851, 3431, 1491, 1490, 1488, 2577, 1487, 1486, 2575, 3422, 1485, 2574, 2332, 5843, 3666, 5844, 5845, 5846, 5860, 2350, 5618, 2349, 5619, 2348, 3435, 2104, 2102, 3432, 2101, 3674, 5852, 3675, 5853, 3676, 5614, 5857, 5615, 5858, 2109, 5630, 1275, 3453, 1032, 1274, 3452, 1031, 3451, 2361, 5629, 3449, 3448, 7809, 3447, 2597, 3444, 2596, 3443, 5863, 5864, 5622, 5865, 5623, 5624, 7804, 4537, 5626, 4538, 5627, 7806, 4539, 5628, 7805, 4792, 6971, 4793, 7820, 4794, 1285, 1284, 3220, 1283, 1041, 42424, 3219, 3218, 1039, 1038, 3457, 1276, 7811, 3696, 7810, 7815, 5895, 1297, 3475, 3474, 2140, 2379, 3467, 3466, 7822, 5401, 7821, 5402, 6978, 5660, 6993, 5661, 6994, 2155, 2154, 2153, 3482, 2151, 3481, 2150, 3480, 2149, 1299, 1298, 3476, 5896, 7833, 5897, 5898, 6988, 5899, 4100, 3497, 1077, 1076, 2163, 2162, 2160, 3490, 2159, 3489, 2158, 3488, 2156, 1088, 2175, 3020, 2173, 2172, 2171, 3019, 3018, 3498, 1078, 4104, 37951, 4105, 7615, 4106, 7614, 7616, 8960, 7631, 8961, 5212, 7632, 2188, 1098, 2187, 1097, 56841, 1089, 7866, 6537, 6536, 6538, 7627, 7629, 5222, 3288, 3287, 3282, 3281, 3038, 3037, 3036, 7635, 7634, 5217, 5218, 5219, 3291, 7651, 4384, 7652, 7897, 7655, 7896, 3297, 3296, 3054, 65339, 3053, 3052, 3293, 3292, 4380, 4379, 7648, 7647, 4139, 3060, 5240, 5241, 5000, 1025-9999, 4155, 5244, 4156, 5245, 5004, 4157, 5246, 3062, 3061, 139 [netbios-ssn], 7898, 7656, 5237, 5238, 6340, 3071, 3070, 5010, 5254, 5012, 5255, 5256, 6588, 6587, 36814, 3069, 5005, 5247, 8998, 8999, 5009, 6593, 8530, 7681, 9620, 4174, 6594, 4175, 5264, 6597, 5265, 5267, 9621, 9622, 7680, 7679, 6589, 9619, 5276, 5277, 6368, 5279, 6367, 4180, 4181, 4182, 5271, 9627, 9628, 9625, 9626, 1900, 5283, 5284, 8311, 5286, 9640, 5287, 5289, 8312, 9644, 5280, 5282, 6369, 8308, 8305, 9637, 8309, 5294, 5295, 5296, 9650, 5297, 7235, 9656, 7234,	TCP	ALLOW



		5299, 7236, 6389, 9655, 5290, 5291, 5293, 9649, 5063, 5064, 5065, 5066, 9662, 7488, 9667, 6399, 9668, 7245, 6398, 7487, 7489, 7005, 5062, 22 [ssh], 8328, 1935, 1934, 7495, 7494, 7496, 7499, 7015, 37641, 8340, 7493, 1701, 37400, 1708, 9669, 1707, 1706, 8112, 8113, 9683, 8110, 7024, 9684, 9689, 7025, 9688, 5080, 5081, 5082, 7020, 37900-37999, 8109, 2809, 2808, 2807, 1716, 1715, 9696, 9697, 8121, 7035, 9695, 7034, 8120, 7031, 9691, 7030, 1723, 3905, 3906, 3907, 3908, 2819, 2818, 8119, 1725, 1724, 8134, 9465, 8135, 7045, 9464, 9469, 2823, 1733, 2822, 1732, 1731, 3916, 3917, 2827, 2826, 3911, 2824, 3912, 9477, 37042, 7059, 8149, 7058, 9478, 8147, 7051, 1987, 1745, 1503, 1502, 1501, 1508, 1507, 1506, 1989, 1988, 9003, 9004, 7068, 7069, 7060, 7062, 9000, 7063, 2845, 1755, 2844, 1512, 1511, 20000-29999, 2609, 2846, 7078, 7073, 7072, 2853, 2852, 2851, 2859, 7087, 10000-19999, 7086, 1536, 1534, 1533, 2861, 2860, 3711, 3712, 1539, 1538, 2869, 1537, 7098, 2881, 7091, 7092, 9032, 7097, 9031, 7096, 1547, 2878, 2877, 2876, 1544, 1543, 1542, 1541, 2872, 1549, 1548, 3980, 3981, 2892, 1561, 2889, 1558, 2888, 2887, 1556, 5917, 2403, 2886, 2402, 2883, 2882, 3971, 3972, 3973, 49211, 5911, 5912, 5913, 3750, 1572, 2661, 1571, 2660, 1570, 3748, 2416, 3749, 1567, 2414, 3503, 1566, 2413, 3502, 2896, 1565, 3501, 2895, 2894, 2893, 3507, 2659, 2417, 3506, 9068, 2671, 1581, 2670, 1580, 9065, 9063, 9064, 2669, 3516, 4606, 3515, 4608, 4609, 1576, 2665, 2423, 1575, 2664, 2422, 3511, 54598, 2663, 2421, 3510, 4605, 9078, 9079, 1352, 1110, 9072, 1351, 1350, 9070, 9071, 1591, 9076, 1590, 9077, 9074, 9075, 3527, 4617, 5948, 3526, 5949, 2678, 1346, 2677, 1345, 3523, 1587, 1344, 3522, 1586, 2675, 3521, 1585, 2674, 1343, 4854, 4855, 4856, 4615, 3529, 3528, 4616, 1108, 5947, 9089, 1363, 3541, 9083, 1362, 3540, 9084, 1359, 1358, 1357, 3535, 1356, 3534, 3533, 1112, 1353, 5953, 5954, 4866, 5955, 4867, 5956, 4868, 5957, 3539, 3791, 3792, 3793, 4640, 4641, 9094, 2460, 1368, 1367, 5721, 5722, 4636, 4651, 5740, 4652, 5741, 2232, 2231, 1378, 1377, 3311, 4642, 4885, 4886, 4887, 4646, 4647, 4648, 4660, 1396, 3574, 1395, 3573, 1394, 3572, 3329, 4419, 3328, 3327, 80 [http], 2236, 2235, 2234, 5742, 5986, 5987, 4657, 4658, 4417, 4659, 4418, 4431, 4432, 2254, 3343, 2248, 56118, 2247, 2246, 6601, 37700-37799, 6600, 6603, 6602, 5999, 5770, 5771, 5772, 4685, 2265, 2262, 2020, 2261, 2260, 7709, 2018, 2259, 2017, 2258, 2257, 2255, 4433, 49166, 7706, 5780, 4693, 6872, 4694, 4695, 5300, 6873, 7720, 5301, 2276, 2275, 2273, 2272, 7719, 2268, 2266, 4686, 5775, 4687, 5776, 4445, 51488, 7714, 7713, 5779, 6869, 6868, 7718, 6881, 7730, 6882, 6885, 7732, 4465, 7731, 4223, 2287, 2282, 2281, 2280, 2279, 2277, 7722, 6878, 5546, 7725, 5547, 7724, 5548, 6879, 7726, 7729, 7728, 2290, 5560, 4234, 2298, 2297, 2296, 2295, 2294, 2291, 3378, 3377, 4224, 6403, 4466, 4225, 4467, 6404, 5558, 6407, 5559, 6649, 6406, 6648, 6408, 7750, 5331, 4000, 5332, 4001, 5333, 4002, 3151, 3150, 3149, 2299, 4235, 4477, 4236, 4478, 6658, 10123, 6416, 7505, 8839, 6659, 6417, 7506, 8837, 8838, 4492, 4493, 6430, 4253, 6432, 4011, 4496, 8854, 4254, 6431, 4012, 4497, 4255, 4013, 4498, 4014, 3165, 3161, 3160, 4488, 6667, 8846, 6425, 4489, 6668, 8845, 6443, 6442, 4023, 4024, 6444, 3178, 40000-49999, 3177, 3176, 6436, 6677, 8855, 6438, 4017, 6437, 4018, 135 [epmap], 4019, 2092, 2091, 4031, 4032, 5121, 4033, 5122, 6453, 5124, 9720, 5125, 6455, 2093, 6449, 7538, 6448, 7537, 5118, 5119, 37800-37899, 4040, 7792, 4041, 5130, 7791, 4042, 5132, 6465, 5133, 8886, 6464, 5134, 8887, 6466, 31000, 5126, 5128, 5129, 4051, 5383, 4052, 5384, 6474, 5385, 5386, 5387, 6475, 4058, 445 [microsoft-ds], 6470, 4050, 6469, 8888, 6482, 5395, 6485, 6243, 6242, 6000, 6486, 4068, 6247, 6246, 6481, 5392, 6480, 4061, 4059, 6252, 6251, 4075, 8672, 4076, 5165, 6253, 4077, 5166, 6256, 7103, 5167, 6255, 7102, 7104, 4071, 9519, 7110, 8200, 8201, 4085, 4086, 7111, 4087, 8205, 7597, 8202, 4080, 4081, 4082, 7109, 9542, 7123, 4098, 9541, 4099, 9546, 7126, 4092, 4093, 443 [https], 4094, 2900, 2908, 2907, 8206, 2906, 2903, 1813, 1812, 2901, 8220, 8221, 7136, 8226, 7135, 8225, 8219, 49740, 7128, 8218, 7143, 7142, 8231, 7145, 6297, 7144, 9568, 9569, 7146, 7149, 7148, 6290, 6292,	
--	--	---	--



		6291, 8230, 6293, 60178, 7139, 8228, 8229, 8000, 47546, 8249, 8482, 9571, 7150, 6063, 8481, 9570, 7151, 60000-65535, 50000-59999, 9586, 7165, 9587, 7164, 9100, 7166, 49159, 8251, 9580, 9581, 8250, 49158, 49157, 2709, 49156, 2708, 49155, 9591, 9592, 56028, 2953, 2952, 2710, 3806, 2951, 3807, 3808, 2957, 8278, 8276, 8279, 8270, 8273, 8274, 8271, 3306 [mysql], 8286, 8287, 8280, 8285, 8282, 8283, 1888, 1646, 1887, 1645, 1643, 1642, 1641, 9389, 9149, 1433 [ms-sql-server], 9150, 9153, 9151, 9152, 3847, 3858, 4705, 4706, 48002, 48000, 49332, 48001, 2528, 3857, 4704, 3870, 3871, 2540, 2781, 8080, 2780, 37600-37699, 2779, 2535, 4718, 5807, 4719, 5808, 5809, 3861, 3862, 4711, 3865, 4712, 3866, 4713, 3867, 4714		
SG-vlan-3	DC-Physical	64396, 50706, 64035, 65204, 58595, 10000-19999, 1434 [ms-sql-m], 59840, 60037, 3478, 59689, 22350, 51324, 60870, 51967, 60271, 49748, 49625, 62186, 5353, 137 [netbios-ns], 5355, 40000-49999, 63118, 62426, 60368, 57079, 58883, 58688, 52467, 49188, 51658, 1947, 51536, 1900, 54807, 62198, 62112, 64577, 60609, 62314, 61303, 61701, 60846, 53682, 62904, 50174, 60975, 53202, 59345, 57927, 20000-29999, 49691, 161 [snmp], 62006, 61435, 58262, 55276, 138 [netbios-dgm], 54622, 3544, 51352, 60000-65535, 58863, 427 [svrloc], 50000-59999, 51875, 51756, 3702, 56969	UDP	ALLOW
SG-vlan-3	SG-vlan-100	53 [dns], 389 [ldap], 88 [kerberos], 25 [smtp], 3268 [msft-gc]	TCP	ALLOW
SG-vlan-3	SG-vlan-100	123 [ntp], 53 [dns], 389 [ldap], 88 [kerberos]	UDP	ALLOW
SG-vlan-3	SG-vlan-6	5061	TCP	ALLOW
SG-vlan-3	SG-vlan-6	50000-50999, 63972, 49159, 40000-49999, 63973, 61900, 60000-65535, 52000-52999, 51852, 50000-59999, 51853, 51867, 51866, 50614, 49371	UDP	ALLOW
SG-vlan-3	SG-vlan-30	443 [https]	TCP	ALLOW
SG-vlan-3	DC-Physical-Shared	3269 [msft-gc-ssl], 53 [dns], 389 [ldap], 88 [kerberos], 514 [syslog], 25 [smtp], 2049 [nfs], 3268 [msft-gc]	TCP	ALLOW
SG-vlan-3	DC-Physical-Shared	123 [ntp], 53 [dns], 389 [ldap], 88 [kerberos], 514 [syslog]	UDP	ALLOW
SG-vlan-3	SG-vlan-3	808, 48107, 48108, 48105, 48106, 4750, 48103, 48104, 1433 [ms-sql-server], 22233, 22234, 445 [microsoft-ds], 22236, 10000-19999, 443 [https], 4444, 5357, 48101, 30000-39999, 4720, 48102, 139 [netbios-ssn], 20000-29999, 48100, 4747, 32843, 32844, 41002, 40000-49999, 8080, 51270, 48100-48199, 1688, 80 [http], 60000-65535, 4730, 49000-49999, 16500, 50000-59999, 4799, 3700, 135 [epmap], 1947	TCP	ALLOW
SG-vlan-3	SG-vlan-3	51903, 65087, 49823, 63121, 137 [netbios-ns], 40000-49999, 61443, 58560, 62425, 64506, 1434 [ms-sql-m], 138 [netbios-dgm], 60000-65535, 59931, 57412, 50399, 52767, 51774, 49000-49999, 60263, 50000-59999, 50115, 60000-60999	UDP	ALLOW
SG-vlan-3	SG-vlan-18	427 [svrloc]	TCP	ALLOW
SG-vlan-3	SG-vlan-303	55555, 50000-59999	TCP	ALLOW
SG-vlan-20	SG-vlan-3	5152, 41002, 40000-49999, 445 [microsoft-ds]	TCP	ALLOW
SG-vlan-192	SG-vlan-3	41002, 40000-49999, 445 [microsoft-ds]	TCP	ALLOW
SG-vlan-100	SG-vlan-3	49319, 48107, 49318, 48108, 48105, 48106, 49315, 49314, 48103, 48104, 49159, 445 [microsoft-ds], 57865, 50394, 48101, 49158, 48102, 49156, 49155, 48100, 52738, 49272, 47128, 49307, 49305, 47124, 49303, 49302, 53791, 49266, 49200-49299, 56826, 49259,	TCP	ALLOW



		49491, 50053, 50178, 56950, 50059, 49256, 20000-29999, 50336, 51546, 53601, 51549, 41002, 60938, 57492, 60941, 50340, 51552, 51555, 49000-49999, 49242, 3700, 49240, 1433 [ms-sql-server], 60955, 2500, 49235, 50237, 49199, 49231, 49195, 49229, 49225, 49100-49199, 40000-49999, 56064, 1030, 60958, 49181, 52382, 80 [http], 49180, 56067, 53597, 49223, 49189, 49300-49399, 49188, 49187, 49220, 135 [epmap], 49186, 49215, 56072, 49170, 49179, 49212, 49575, 50137, 49177, 49295, 49173, 49206, 20006, 48100-48199, 49161, 1688, 60000-65535, 49169, 50422, 49201, 49288, 49321, 50000-59999, 52842, 49166, 49163, 49162		
SG-vlan-100	SG-vlan-3	137 [netbios-ns]	UDP	ALLOW
SG-vlan-100	SG-vlan-3	123 [ntp]	UDP	ALLOW
Internet	SG-vlan-3	55288, 56661, 50000-59999, 55285, 56658, 443 [https]	TCP	ALLOW
Internet	SG-vlan-3	49408, 51938, 123 [ntp], 49889, 49258, 40000-49999, 57122, 58591, 50174, 54121, 52465, 53741, 59246, 60000-65535, 55434, 52211, 57896, 64290, 50000-59999, 55855, 49285, 51239	UDP	ALLOW
DC-Physical	SG-vlan-3	49437, 1433 [ms-sql-server], 63545, 22233, 445 [microsoft-ds], 10000-19999, 443 [https], 55289, 55288, 22 [ssh], 4444, 4445, 4446, 49155, 49154, 13724, 49153, 6001, 4780, 49305, 49100-49199, 55292, 40000-49999, 2000, 55290, 63877, 21 [ftp], 55295, 55294, 55293, 1028, 55298, 1500, 80 [http], 49180, 55297, 135 [epmap], 49185, 48008, 49214, 58293, 58292, 52032, 1556, 5357, 49212, 139 [netbios-ssn], 49179, 48000, 8305, 49177, 4747, 41002, 6389, 49203, 8080, 1050, 49160, 1688, 58862, 60000-65535, 3389, 20 [ftp-data], 49000-49999, 50000-59999, 4799	TCP	ALLOW
DC-Physical	SG-vlan-3	61129, 138 [netbios-dgm], 137 [netbios-ns], 3389, 20000-29999, 50000-59999, 56154	UDP	ALLOW
DC-Physical	SG-vlan-3	123 [ntp]	UDP	ALLOW

11.1.1.3

SOURCE	DESTINATION	SERVICES	PROTOCOLS	ACTION
SG-vlan-6	SG-vlan-3	41002, 40000-49999, 445 [microsoft-ds], 135 [epmap]	TCP	ALLOW
SG-vlan-3	Internet	5671, 6401, 6400, 389 [ldap], 9352, 443 [https], 80 [http], 1521, 22 [ssh], 3478, 6403, 5721, 6402	TCP	ALLOW
SG-vlan-3	Internet	123 [ntp], 4793, 40000-49999, 59583, 10000-19999, 443 [https], 51240, 3478, 3544, 60000-65535, 49487, 20000-29999, 50000-59999	UDP	ALLOW
SG-vlan-3	SG-vlan-100	49159, 1583, 59762, 445 [microsoft-ds], 60911, 57741, 4444, 49158, 49279, 49157, 49673, 54998, 49155, 49154, 49272, 51527, 57070, 49400-49499, 58603, 52581, 58845, 60765, 51376, 52101, 47123, 50443, 60241, 49810, 64614, 49819, 63527, 56391, 58857, 9080, 1234, 60254, 54811, 53727, 56716, 49408, 49525, 62444, 62000-62999, 59791, 56049, 55234, 54541, 56326, 58229, 51790, 54663, 49000-49999, 8834, 49243, 55910, 50868, 1801, 1433 [ms-sql-server], 60948, 443 [https], 54156, 51285, 54550, 55000, 2105, 54153, 60435, 60830, 55887, 51960, 60312, 59843, 60157, 49234, 51721, 53865, 53348, 49198, 49351, 56615, 55409, 52659, 49229, 40000-49999, 59573, 54442, 63000-63999, 52382, 61926, 80 [http], 52542, 60045, 52426, 50523, 135 [epmap], 52428, 49616, 44444, 64537, 57280, 60612, 61027, 60695, 52832, 49213, 139 [netbios-ssn], 49178, 49332, 49294, 49209,	TCP	ALLOW



		50938, 52717, 49600, 49325, 61430, 2383, 60978, 59878, 49160, 60503, 1688, 51353, 60000-65535, 49288, 50000-59999, 49286		
SG-vlan-3	SG-vlan-100	137 [netbios-ns]	UDP	ALLOW
SG-vlan-3	DC-Physical	4970, 1462, 2790, 2306, 2548, 5816, 2305, 2789, 2547, 4728, 5817, 2788, 4729, 2303, 2302, 2300, 2541, 30000-39999, 4720, 4723, 4724, 2308, 2307, 2549, 1473, 1472, 4738, 5827, 6917, 2317, 5828, 2316, 6918, 2314, 3402, 1466, 3401, 2311, 3400, 2310, 1463, 4730, 3643, 4732, 3644, 4733, 4734, 5824, 3409, 4735, 4736, 3408, 3647, 4737, 3660, 1484, 2331, 1483, 1480, 5838, 5839, 1479, 2326, 2322, 4741, 4742, 4500, 4743, 4501, 4744, 4502, 4986, 3656, 3657, 5837, 5851, 3431, 1491, 1490, 1488, 2577, 1487, 1486, 2575, 3422, 1485, 2574, 2332, 5843, 3666, 5844, 5845, 5846, 5860, 2350, 5618, 2349, 5619, 2348, 3435, 2104, 2102, 3432, 2101, 3674, 5852, 3675, 5853, 3676, 5614, 5857, 5615, 5858, 2109, 5630, 1275, 3453, 1032, 1274, 3452, 1031, 3451, 2361, 5629, 3449, 3448, 7809, 3447, 2597, 3444, 2596, 3443, 5863, 5864, 5622, 5865, 5623, 5624, 7804, 4537, 5626, 4538, 5627, 7806, 4539, 5628, 7805, 4792, 6971, 4793, 7820, 4794, 1285, 1284, 3220, 1283, 1041, 42424, 3219, 3218, 1039, 1038, 3457, 1276, 7811, 3696, 7810, 7815, 5895, 1297, 3475, 3474, 2140, 2379, 3467, 3466, 7822, 5401, 7821, 5402, 6978, 5660, 6993, 5661, 6994, 2155, 2154, 2153, 3482, 2151, 3481, 2150, 3480, 2149, 1299, 1298, 3476, 5896, 7833, 5897, 5898, 6988, 5899, 4100, 3497, 1077, 1076, 2163, 2162, 2160, 3490, 2159, 3489, 2158, 3488, 2156, 1088, 2175, 3020, 2173, 2172, 2171, 3019, 3018, 3498, 1078, 4104, 37951, 4105, 7615, 4106, 7614, 7616, 8960, 7631, 8961, 5212, 7632, 2188, 1098, 2187, 1097, 56841, 1089, 7866, 6537, 6536, 6538, 7627, 7629, 5222, 3288, 3287, 3282, 3281, 3038, 3037, 3036, 7635, 7634, 5217, 5218, 5219, 3291, 7651, 4384, 7652, 7897, 7655, 7896, 3297, 3296, 3054, 65339, 3053, 3052, 3293, 3292, 4380, 4379, 7648, 7647, 4139, 3060, 5240, 5241, 5000, 1025-9999, 4155, 5244, 4156, 5245, 5004, 4157, 5246, 3062, 3061, 139 [netbios-ssn], 7898, 7656, 5237, 5238, 6340, 3071, 3070, 5010, 5254, 5012, 5255, 5256, 6588, 6587, 36814, 3069, 5005, 5247, 8998, 8999, 5009, 6593, 8530, 7681, 9620, 4174, 6594, 4175, 5264, 6597, 5265, 5267, 9621, 9622, 7680, 7679, 6589, 9619, 5276, 5277, 6368, 5279, 6367, 4180, 4181, 4182, 5271, 9627, 9628, 9625, 9626, 1900, 5283, 5284, 8311, 5286, 9640, 5287, 5289, 8312, 9644, 5280, 5282, 6369, 8308, 8305, 9637, 8309, 5294, 5295, 5296, 9650, 5297, 7235, 9656, 7234, 5299, 7236, 6389, 9655, 5290, 5291, 5293, 9649, 5063, 5064, 5065, 5066, 9662, 7488, 9667, 6399, 9668, 7245, 6398, 7487, 7489, 7005, 5062, 22 [ssh], 8328, 1935, 1934, 7495, 7494, 7496, 7499, 7015, 37641, 8340, 7493, 1701, 37400, 1708, 9669, 1707, 1706, 8112, 8113, 9683, 8110, 7024, 9684, 9689, 7025, 9688, 5080, 5081, 5082, 7020, 37900-37999, 8109, 2809, 2808, 2807, 1716, 1715, 9696, 9697, 8121, 7035, 9695, 7034, 8120, 7031, 9691, 7030, 1723, 3905, 3906, 3907, 3908, 2819, 2818, 8119, 1725, 1724, 8134, 9465, 8135, 7045, 9464, 9469, 2823, 1733, 2822, 1732, 1731, 3916, 3917, 2827, 2826, 3911, 2824, 3912, 9477, 37042, 7059, 8149, 7058, 9478, 8147, 7051, 1987, 1745, 1503, 1502, 1501, 1508, 1507, 1506, 1989, 1988, 9003, 9004, 7068, 7069, 7060, 7062, 9000, 7063, 2845, 1755, 2844, 1512, 1511, 20000-29999, 2609, 2846, 7078, 7073, 7072, 2853, 2852, 2851, 2859, 7087, 10000-19999, 7086,	TCP	ALLOW



		1536, 1534, 1533, 2861, 2860, 3711, 3712, 1539, 1538, 2869, 1537, 7098, 2881, 7091, 7092, 9032, 7097, 9031, 7096, 1547, 2878, 2877, 2876, 1544, 1543, 1542, 1541, 2872, 1549, 1548, 3980, 3981, 2892, 1561, 2889, 1558, 2888, 2887, 1556, 5917, 2403, 2886, 2402, 2883, 2882, 3971, 3972, 3973, 49211, 5911, 5912, 5913, 3750, 1572, 2661, 1571, 2660, 1570, 3748, 2416, 3749, 1567, 2414, 3503, 1566, 2413, 3502, 2896, 1565, 3501, 2895, 2894, 2893, 3507, 2659, 2417, 3506, 9068, 2671, 1581, 2670, 1580, 9065, 9063, 9064, 2669, 3516, 4606, 3515, 4608, 4609, 1576, 2665, 2423, 1575, 2664, 2422, 3511, 54598, 2663, 2421, 3510, 4605, 9078, 9079, 1352, 1110, 9072, 1351, 1350, 9070, 9071, 1591, 9076, 1590, 9077, 9074, 9075, 3527, 4617, 5948, 3526, 5949, 2678, 1346, 2677, 1345, 3523, 1587, 1344, 3522, 1586, 2675, 3521, 1585, 2674, 1343, 4854, 4855, 4856, 4615, 3529, 3528, 4616, 1108, 5947, 9089, 1363, 3541, 9083, 1362, 3540, 9084, 1359, 1358, 1357, 3535, 1356, 3534, 3533, 1112, 1353, 5953, 5954, 4866, 5955, 4867, 5956, 4868, 5957, 3539, 3791, 3792, 3793, 4640, 4641, 9094, 2460, 1368, 1367, 5721, 5722, 4636, 4651, 5740, 4652, 5741, 2232, 2231, 1378, 1377, 3311, 4642, 4885, 4886, 4887, 4646, 4647, 4648, 4660, 1396, 3574, 1395, 3573, 1394, 3572, 3329, 4419, 3328, 3327, 80 [http], 2236, 2235, 2234, 5742, 5986, 5987, 4657, 4658, 4417, 4659, 4418, 4431, 4432, 2254, 3343, 2248, 56118, 2247, 2246, 6601, 37700-37799, 6600, 6603, 6602, 5999, 5770, 5771, 5772, 4685, 2265, 2262, 2020, 2261, 2260, 7709, 2018, 2259, 2017, 2258, 2257, 2255, 4433, 49166, 7706, 5780, 4693, 6872, 4694, 4695, 5300, 6873, 7720, 5301, 2276, 2275, 2273, 2272, 7719, 2268, 2266, 4686, 5775, 4687, 5776, 4445, 51488, 7714, 7713, 5779, 6869, 6868, 7718, 6881, 7730, 6882, 6885, 7732, 4465, 7731, 4223, 2287, 2282, 2281, 2280, 2279, 2277, 7722, 6878, 5546, 7725, 5547, 7724, 5548, 6879, 7726, 7729, 7728, 2290, 5560, 4234, 2298, 2297, 2296, 2295, 2294, 2291, 3378, 3377, 4224, 6403, 4466, 4225, 4467, 6404, 5558, 6407, 5559, 6649, 6406, 6648, 6408, 7750, 5331, 4000, 5332, 4001, 5333, 4002, 3151, 3150, 3149, 2299, 4235, 4477, 4236, 4478, 6658, 10123, 6416, 7505, 8839, 6659, 6417, 7506, 8837, 8838, 4492, 4493, 6430, 4253, 6432, 4011, 4496, 8854, 4254, 6431, 4012, 4497, 4255, 4013, 4498, 4014, 3165, 3161, 3160, 4488, 6667, 8846, 6425, 4489, 6668, 8845, 6443, 6442, 4023, 4024, 6444, 3178, 40000-49999, 3177, 3176, 6436, 6677, 8855, 6438, 4017, 6437, 4018, 135 [epmap], 4019, 2092, 2091, 4031, 4032, 5121, 4033, 5122, 6453, 5124, 9720, 5125, 6455, 2093, 6449, 7538, 6448, 7537, 5118, 5119, 37800-37899, 4040, 7792, 4041, 5130, 7791, 4042, 5132, 6465, 5133, 8886, 6464, 5134, 8887, 6466, 31000, 5126, 5128, 5129, 4051, 5383, 4052, 5384, 6474, 5385, 5386, 5387, 6475, 4058, 445 [microsoft-ds], 6470, 4050, 6469, 8888, 6482, 5395, 6485, 6243, 6242, 6000, 6486, 4068, 6247, 6246, 6481, 5392, 6480, 4061, 4059, 6252, 6251, 4075, 8672, 4076, 5165, 6253, 4077, 5166, 6256, 7103, 5167, 6255, 7102, 7104, 4071, 9519, 7110, 8200, 8201, 4085, 4086, 7111, 4087, 8205, 7597, 8202, 4080, 4081, 4082, 7109, 9542, 7123, 4098, 9541, 4099, 9546, 7126, 4092, 4093, 443 [https], 4094, 2900, 2908, 2907, 8206, 2906, 2903, 1813, 1812, 2901, 8220, 8221, 7136, 8226, 7135, 8225, 8219, 49740, 7128, 8218, 7143, 7142, 8231, 7145, 6297, 7144, 9568, 9569, 7146, 7149, 7148, 6290, 6292, 6291, 8230, 6293, 60178, 7139, 8228, 8229, 8000, 47546, 8249, 8482, 9571, 7150, 6063, 8481, 9570, 7151, 60000-65535,	
--	--	--	--



		50000-59999, 9586, 7165, 9587, 7164, 9100, 7166, 49159, 8251, 9580, 9581, 8250, 49158, 49157, 2709, 49156, 2708, 49155, 9591, 9592, 56028, 2953, 2952, 2710, 3806, 2951, 3807, 3808, 2957, 8278, 8276, 8279, 8270, 8273, 8274, 8271, 3306 [mysql], 8286, 8287, 8280, 8285, 8282, 8283, 1888, 1646, 1887, 1645, 1643, 1642, 1641, 9389, 9149, 1433 [ms-sql-server], 9150, 9153, 9151, 9152, 3847, 3858, 4705, 4706, 48002, 48000, 49332, 48001, 2528, 3857, 4704, 3870, 3871, 2540, 2781, 8080, 2780, 37600-37699, 2779, 2535, 4718, 5807, 4719, 5808, 5809, 3861, 3862, 4711, 3865, 4712, 3866, 4713, 3867, 4714		
SG-vlan-3	DC-Physical	64396, 50706, 64035, 65204, 58595, 10000-19999, 1434 [ms-sql-m], 59840, 60037, 3478, 59689, 22350, 51324, 60870, 51967, 60271, 49748, 49625, 62186, 5353, 137 [netbios-ns], 5355, 40000-49999, 63118, 62426, 60368, 57079, 58883, 58688, 52467, 49188, 51658, 1947, 51536, 1900, 54807, 62198, 62112, 64577, 60609, 62314, 61303, 61701, 60846, 53682, 62904, 50174, 60975, 53202, 59345, 57927, 20000-29999, 49691, 161 [snmp], 62006, 61435, 58262, 55276, 138 [netbios-dgm], 54622, 3544, 51352, 60000-65535, 58863, 427 [svrloc], 50000-59999, 51875, 51756, 3702, 56969	UDP	ALLOW
SG-vlan-3	SG-vlan-100	53 [dns], 389 [ldap], 88 [kerberos], 25 [smtp], 3268 [msft-gc]	TCP	ALLOW
SG-vlan-3	SG-vlan-100	123 [ntp], 53 [dns], 389 [ldap], 88 [kerberos]	UDP	ALLOW
SG-vlan-3	SG-vlan-6	5061	TCP	ALLOW
SG-vlan-3	SG-vlan-6	50000-50999, 63972, 49159, 40000-49999, 63973, 61900, 60000-65535, 52000-52999, 51852, 50000-59999, 51853, 51867, 51866, 50614, 49371	UDP	ALLOW
SG-vlan-3	SG-vlan-30	443 [https]	TCP	ALLOW
SG-vlan-3	DC-Physical-Shared	3269 [msft-gc-ssl], 53 [dns], 389 [ldap], 88 [kerberos], 514 [syslog], 25 [smtp], 2049 [nfs], 3268 [msft-gc]	TCP	ALLOW
SG-vlan-3	DC-Physical-Shared	123 [ntp], 53 [dns], 389 [ldap], 88 [kerberos], 514 [syslog]	UDP	ALLOW
SG-vlan-3	SG-vlan-3	808, 48107, 48108, 48105, 48106, 4750, 48103, 48104, 1433 [ms-sql-server], 22233, 22234, 445 [microsoft-ds], 22236, 10000-19999, 443 [https], 4444, 5357, 48101, 30000-39999, 4720, 48102, 139 [netbios-ssn], 20000-29999, 48100, 4747, 32843, 32844, 41002, 40000-49999, 8080, 51270, 48100-48199, 1688, 80 [http], 60000-65535, 4730, 49000-49999, 16500, 50000-59999, 4799, 3700, 135 [epmap], 1947	TCP	ALLOW
SG-vlan-3	SG-vlan-3	51903, 65087, 49823, 63121, 137 [netbios-ns], 40000-49999, 61443, 58560, 62425, 64506, 1434 [ms-sql-m], 138 [netbios-dgm], 60000-65535, 59931, 57412, 50399, 52767, 51774, 49000-49999, 60263, 50000-59999, 50115, 60000-60999	UDP	ALLOW
SG-vlan-3	SG-vlan-18	427 [svrloc]	TCP	ALLOW
SG-vlan-3	SG-vlan-303	55555, 50000-59999	TCP	ALLOW
SG-vlan-20	SG-vlan-3	5152, 41002, 40000-49999, 445 [microsoft-ds]	TCP	ALLOW



SG-vlan-192	SG-vlan-3	41002, 40000-49999, 445 [microsoft-ds]	TCP	ALLOW
SG-vlan-100	SG-vlan-3	49319, 48107, 49318, 48108, 48105, 48106, 49315, 49314, 48103, 48104, 49159, 445 [microsoft-ds], 57865, 50394, 48101, 49158, 48102, 49156, 49155, 48100, 52738, 49272, 47128, 49307, 49305, 47124, 49303, 49302, 53791, 49266, 49200-49299, 56826, 49259, 49491, 50053, 50178, 56950, 50059, 49256, 20000-29999, 50336, 51546, 53601, 51549, 41002, 60938, 57492, 60941, 50340, 51552, 51555, 49000-49999, 49242, 3700, 49240, 1433 [ms-sql-server], 60955, 2500, 49235, 50237, 49199, 49231, 49195, 49229, 49225, 49100-49199, 40000-49999, 56064, 1030, 60958, 49181, 52382, 80 [http], 49180, 56067, 53597, 49223, 49189, 49300-49399, 49188, 49187, 49220, 135 [epmap], 49186, 49215, 56072, 49170, 49179, 49212, 49575, 50137, 49177, 49295, 49173, 49206, 20006, 48100-48199, 49161, 1688, 60000-65535, 49169, 50422, 49201, 49288, 49321, 50000-59999, 52842, 49166, 49163, 49162	TCP	ALLOW
SG-vlan-100	SG-vlan-3	137 [netbios-ns]	UDP	ALLOW
SG-vlan-100	SG-vlan-3	123 [ntp]	UDP	ALLOW
Internet	SG-vlan-3	55288, 56661, 50000-59999, 55285, 56658, 443 [https]	TCP	ALLOW
Internet	SG-vlan-3	49408, 51938, 123 [ntp], 49889, 49258, 40000-49999, 57122, 58591, 50174, 54121, 52465, 53741, 59246, 60000-65535, 55434, 52211, 57896, 64290, 50000-59999, 55855, 49285, 51239	UDP	ALLOW
DC-Physical	SG-vlan-3	49437, 1433 [ms-sql-server], 63545, 22233, 445 [microsoft-ds], 10000-19999, 443 [https], 55289, 55288, 22 [ssh], 4444, 4445, 4446, 49155, 49154, 13724, 49153, 6001, 4780, 49305, 49100-49199, 55292, 40000-49999, 2000, 55290, 63877, 21 [ftp], 55295, 55294, 55293, 1028, 55298, 1500, 80 [http], 49180, 55297, 135 [epmap], 49185, 48008, 49214, 58293, 58292, 52032, 1556, 5357, 49212, 139 [netbios-ssn], 49179, 48000, 8305, 49177, 4747, 41002, 6389, 49203, 8080, 1050, 49160, 1688, 58862, 60000-65535, 3389, 20 [ftp-data], 49000-49999, 50000-59999, 4799	TCP	ALLOW
DC-Physical	SG-vlan-3	61129, 138 [netbios-dgm], 137 [netbios-ns], 3389, 20000-29999, 50000-59999, 56154	UDP	ALLOW
DC-Physical	SG-vlan-3	123 [ntp]	UDP	ALLOW

11.1.1.4



11.1.1.5 VLAN-30 Firewall Rules

SOURCE	DESTINATION	SERVICES	PROTOCOLS	ACTION
SG-vlan-4	SG-vlan-30	443 [https]	TCP	ALLOW
SG-vlan-30	DC-Physical	138 [netbios-dgm], 137 [netbios-ns]	UDP	ALLOW
SG-vlan-30	SG-vlan-30	5020, 5021, 7225, 8084, 443 [https]	TCP	ALLOW
SG-vlan-30	SG-vlan-30	502,050,105,045,601,000,000,000	UDP	ALLOW
SG-vlan-30	SG-vlan-30	123 [ntp]	UDP	ALLOW
SG-vlan-30	DC-Physical-Shared	123 [ntp], 53 [dns], 389 [ldap]	UDP	ALLOW
SG-vlan-30	SG-vlan-20	50000-59999	TCP	ALLOW
SG-vlan-30	SG-vlan-20	50000-59999	UDP	ALLOW
SG-vlan-30	SG-vlan-100	53 [dns], 88 [kerberos], 389 [ldap], 3268 [msft-gc]	TCP	ALLOW
SG-vlan-30	SG-vlan-100	53 [dns], 88 [kerberos], 389 [ldap]	UDP	ALLOW
SG-vlan-30	SG-vlan-100	49159, 49158, 40000-49999, 49155, 445 [microsoft-ds], 135 [epmap]	TCP	ALLOW
SG-vlan-3	SG-vlan-30	443 [https]	TCP	ALLOW
SG-vlan-20	SG-vlan-30	40000-49999, 135 [epmap], 445 [microsoft-ds]	TCP	ALLOW
SG-vlan-100	SG-vlan-30	443 [https]	TCP	ALLOW



11.1.1.6 VLAN-6 Firewall Rules

SOURCE	DESTINATION	SERVICES	PROTOCOLS	ACTION
SG-vlan-6	SG-vlan-100	1688, 80 [http], 49159, 49158, 40000-49999, 1433 [ms-sql-server], 139 [netbios-ssn], 49155, 445 [microsoft-ds], 135 [epmap]	TCP	ALLOW
SG-vlan-6	DC-Physical	8530, 6355, 6354, 3365, 2790, 445 [microsoft-ds], 5819, 6348, 30000-39999, 49157, 49156, 6349, 9510, 9474, 4581, 4582, 4583, 3375, 3373, 3372, 1745, 5706, 5707, 5708, 5829, 2797, 3367, 3366, 4576, 4577, 5820, 4578, 5700, 5821, 5701, 5702, 5824, 5825, 8952, 8953, 3386, 2172, 3382, 2171, 3381, 9517, 4500, 20000-29999, 9515, 9516, 8960, 8963, 8964, 7633, 2218, 3946, 1646, 2217, 3947, 2216, 2214, 2213, 2212, 5721, 5722, 10123, 3940, 3941, 3942, 3945, 8959, 8057, 9389, 7640, 4011, 7643, 5060, 10000-19999, 5061, 443 [https], 5062, 5698, 7635, 7634, 5699, 2749, 2748, 2869, 2747, 5196, 5197, 5198, 40000-49999, 5192, 5193, 5194, 80 [http], 2754, 2753, 2752, 7648, 135 [epmap], 1429, 6333, 1025-9999, 6334, 3343, 1437, 1436, 1556, 2248, 2247, 1431, 1430, 48002, 6328, 48001, 6327, 6329, 1438, 8000, 6344, 6345, 4443, 8080, 1723, 5005, 2815	TCP	ALLOW
SG-vlan-6	DC-Physical	29917, 138 [netbios-dgm], 3478, 137 [netbios-ns], 5355, 60000-65535, 48002, 20000-29999, 50000-59999, 10000-19999	UDP	ALLOW
SG-vlan-6	SG-vlan-100	389 [ldap], 88 [kerberos], 3268 [msft-gc]	TCP	ALLOW
SG-vlan-6	SG-vlan-100	389 [ldap]	UDP	ALLOW
SG-vlan-6	SG-vlan-6	809, 49934, 56372, 49918, 445 [microsoft-ds], 5061, 5062, 443 [https], 56357, 50053, 56557, 53448, 8404, 49573, 49824, 54918, 4443, 8060, 5090, 49909, 5091, 49809, 5070, 53293, 49926, 5073, 56744, 444 [snpp], 53278, 49244, 49981, 50000-59999, 135 [epmap], 56749	TCP	ALLOW
SG-vlan-6	SG-vlan-6	54442, 50077, 50000-50999, 52000-52999, 50000-59999	UDP	ALLOW
SG-vlan-6	DC-Physical-Shared	53 [dns], 389 [ldap], 88 [kerberos], 514 [syslog], 3268 [msft-gc]	TCP	ALLOW
SG-vlan-6	DC-Physical-Shared	53 [dns], 389 [ldap]	UDP	ALLOW
SG-vlan-6	Internet	80 [http], 3478, 443 [https]	TCP	ALLOW
SG-vlan-6	Internet	3478, 40000-49999, 30000-39999, 50000-59999	UDP	ALLOW
SG-vlan-6	SG-vlan-3	41002, 40000-49999, 445 [microsoft-ds], 135 [epmap]	TCP	ALLOW
SG-vlan-3	SG-vlan-6	5061	TCP	ALLOW
SG-vlan-3	SG-vlan-6	50000-50999, 63972, 49159, 40000-49999, 63973, 61900, 60000-65535, 52000-52999, 51852, 50000-59999, 51853, 51867, 51866, 49371, 50614	UDP	ALLOW
SG-vlan-100	SG-vlan-6	123 [ntp]	UDP	ALLOW
Internet	SG-vlan-6	51041, 55594, 49624, 56642, 50000-59999, 58617, 52647	UDP	ALLOW
DC-Physical	SG-vlan-6	123 [ntp]	UDP	ALLOW
DC-Physical	SG-vlan-6	5066, 52806, 61362, 5068, 49677, 63862, 63269, 63820, 59289, 64998, 445 [microsoft-ds], 5061, 61769, 443 [https], 54391, 52373, 59888, 56930, 51320, 56695, 58677, 51885, 58917, 49352, 55928, 51009, 56737, 50837, 49308, 49505, 40000-49999, 64325, 58244, 56142, 5070, 5071, 62825, 56148, 57316, 80 [http], 60204, 52542, 56782, 60566, 51770, 54642, 59974, 60241, 54767, 60361, 135 [epmap], 58607, 49537, 65342, 62473, 64498, 57240, 63129, 59306, 56833, 52355, 58138, 56751, 50694, 53008, 60331, 51746, 58616, 65185, 49925, 64781, 49249, 4443, 63411, 57372, 56164, 55194, 60978, 59438, 57458, 60942, 50385, 54149, 53730, 51110, 58542, 55676, 60784, 3389, 59799, 60585, 51871, 56849, 50148, 61390	TCP	ALLOW
DC-Physical	SG-vlan-6	50000-50999, 55658, 50000-59999	UDP	ALLOW

11.1.1.7 VLAN-20 Firewall Rules

SOURCE	DESTINATION	SERVICES	PROTOCOLS	ACTION
--------	-------------	----------	-----------	--------



SG-vlan-30	SG-vlan-20	50000-59999	TCP	ALLOW
SG-vlan-30	SG-vlan-20	50000-59999	UDP	ALLOW
SG-vlan-20	SG-vlan-3	5152, 41002, 40000-49999, 445 [microsoft-ds]	TCP	ALLOW
SG-vlan-20	DC-Physical-Shared	53 [dns], 88 [kerberos], 389 [ldap], 514 [syslog], 3268 [msft-gc]	TCP	ALLOW
SG-vlan-20	DC-Physical-Shared	53 [dns], 389 [ldap]	UDP	ALLOW
SG-vlan-20	SG-vlan-30	40000-49999, 135 [epmap], 445 [microsoft-ds]	TCP	ALLOW
SG-vlan-20	SG-vlan-20	139 [netbios-ssn]	TCP	ALLOW
SG-vlan-20	Internet	80 [http], 443 [https]	TCP	ALLOW
SG-vlan-20	DC-Physical	8530, 1025-9999, 27832, 40000-49999, 1433 [ms-sql-server], 8080, 445 [microsoft-ds], 27825, 10000-19999, 80 [http], 5721, 49157, 10123, 49156, 135 [epmap]	TCP	ALLOW
SG-vlan-20	DC-Physical	67 [bootps], 138 [netbios-dgm], 137 [netbios-ns], 5355, 2638, 3702, 1900	UDP	ALLOW
SG-vlan-20	SG-vlan-100	53 [dns], 389 [ldap], 88 [kerberos], 3268 [msft-gc]	TCP	ALLOW
SG-vlan-20	SG-vlan-100	53 [dns], 389 [ldap]	UDP	ALLOW
SG-vlan-20	SG-vlan-100	1688, 49159, 49158, 40000-49999, 49155, 135 [epmap], 445 [microsoft-ds]	TCP	ALLOW
SG-vlan-20	SG-vlan-100	67 [bootps]	UDP	ALLOW
SG-vlan-100	SG-vlan-20	445 [microsoft-ds]	TCP	ALLOW
Internet	SG-vlan-20	60000-65535	UDP	ALLOW
DC-Physical	SG-vlan-20	123 [ntp]	UDP	ALLOW
DC-Physical	SG-vlan-20	3389, 40000-49999, 445 [microsoft-ds], 135 [epmap], 49154, 2638, 49195	TCP	ALLOW



11.1.1.8 VLAN-4 Firewall Rules

SOURCE	DESTINATION	SERVICES	PROTOCOLS	ACTION
SG-vlan-4	Internet	80 [http], 443 [https]	TCP	ALLOW
SG-vlan-4	DC-Physical-Shared	123 [ntp], 53 [dns]	UDP	ALLOW
SG-vlan-4	SG-vlan-30	443 [https]	TCP	ALLOW
SG-vlan-4	SG-vlan-4	443 [https]	TCP	ALLOW
SG-vlan-4	SG-vlan-100	53 [dns]	UDP	ALLOW
SG-vlan-4	DC-Physical	1090, 3009, 2555, 3016, 1099, 36410, 3001, 30000-39999, 3000, 8080, 2748, 1504	TCP	ALLOW
SG-vlan-4	DC-Physical	19964160	UDP	ALLOW
DC-Physical	SG-vlan-4	4040, 1090, 8500, 3000, 443 [https], 4160, 6293, 3009, 1500, 22 [ssh], 3016, 3104, 30000-39999, 6999, 32788, 1504	TCP	ALLOW
DC-Physical	SG-vlan-4	1996, 161 [snmp]	UDP	ALLOW
DC-Physical	SG-vlan-4	123 [ntp]	UDP	ALLOW

11.1.1.9 VLAN-192 Firewall Rules

SOURCE	DESTINATION	SERVICES	PROTOCOLS	ACTION
SG-vlan-192	SG-vlan-192	445 [microsoft-ds]	TCP	ALLOW
SG-vlan-192	DC-Physical-Shared	88 [kerberos], 389 [ldap], 3268 [msft-gc]	TCP	ALLOW
SG-vlan-192	DC-Physical-Shared	123 [ntp], 389 [ldap]	UDP	ALLOW
SG-vlan-192	SG-vlan-3	41002, 40000-49999, 445 [microsoft-ds]	TCP	ALLOW
SG-vlan-192	DC-Physical	9100, 631 [ipp], 40000-49999, 445 [microsoft-ds], 1556, 80 [http], 5721, 49157, 10123, 49376, 49156, 49375, 135 [epmap], 49374, 49373	TCP	ALLOW
SG-vlan-192	DC-Physical	138 [netbios-dgm], 137 [netbios-ns], 5355, 161 [snmp], 3702	UDP	ALLOW
SG-vlan-192	SG-vlan-100	389 [ldap]	TCP	ALLOW
SG-vlan-192	SG-vlan-100	139 [netbios-ssn], 445 [microsoft-ds]	TCP	ALLOW
SG-vlan-192	SG-vlan-100	138 [netbios-dgm], 137 [netbios-ns]	UDP	ALLOW
SG-vlan-192	Internet	1403, 80 [http], 50422, 389 [ldap], 50000-59999, 443 [https]	TCP	ALLOW
SG-vlan-192	Internet	53 [dns]	UDP	ALLOW
SG-vlan-100	SG-vlan-192	445 [microsoft-ds]	TCP	ALLOW



11.1.1.10 VLAN-303 Firewall Rules

SOURCE	DESTINATION	SERVICES	PROTOCOLS	ACTION
SG-vlan-303	SG-vlan-100	49159, 49158, 49155, 135 [epmap], 445 [microsoft-ds]	TCP	ALLOW
SG-vlan-303	SG-vlan-100	53 [dns], 389 [ldap], 88 [kerberos], 3268 [msft-gc]	TCP	ALLOW
SG-vlan-303	SG-vlan-100	53 [dns], 389 [ldap]	UDP	ALLOW
SG-vlan-303	DC-Physical-Shared	389 [ldap], 88 [kerberos], 3268 [msft-gc]	TCP	ALLOW
SG-vlan-303	DC-Physical-Shared	53 [dns], 389 [ldap]	UDP	ALLOW
SG-vlan-303	DC-Physical	80 [http], 1025-9999, 48002, 40000-49999, 5721, 49157, 48001, 445 [microsoft-ds], 135 [epmap]	TCP	ALLOW
SG-vlan-303	DC-Physical	138 [netbios-dgm], 137 [netbios-ns], 5355, 50000-59999	UDP	ALLOW
SG-vlan-303	Internet	80 [http], 3478, 50500, 50000-59999, 443 [https]	TCP	ALLOW
SG-vlan-303	Internet	3478	UDP	ALLOW
SG-vlan-3	SG-vlan-303	55555, 50000-59999	TCP	ALLOW
SG-vlan-100	SG-vlan-303	55555	TCP	ALLOW
Others	SG-vlan-303	3389	TCP	ALLOW
Internet	SG-vlan-303	55555, 50000-59999	TCP	ALLOW
Internet	SG-vlan-303	50000-59999	UDP	ALLOW
DC-Physical	SG-vlan-303	123 [ntp]	UDP	ALLOW
DC-Physical	SG-vlan-303	49209, 49155, 135 [epmap], 445 [microsoft-ds]	TCP	ALLOW

11.1.1.11 VLAN-12 Firewall Rules

SOURCE	DESTINATION	SERVICES	PROTOCOLS	ACTION
SG-vlan-12	DC-Physical	60000-65535, 64327	TCP	ALLOW
SG-vlan-12	DC-Physical	137 [netbios-ns], 5355, 3343	UDP	ALLOW
DC-Physical	SG-vlan-12	60000-65535, 20000-29999, 10000-19999	TCP	ALLOW
DC-Physical	SG-vlan-12	3343	UDP	ALLOW



11.1.1.12 VLAN-18 Firewall Rules

SOURCE	DESTINATION	SERVICES	PROTOCOLS	ACTION
SG-vlan-3	SG-vlan-18	427 [svrloc]	TCP	ALLOW
SG-vlan-18	DC-Physical	7801, 2748, 443 [https]	TCP	ALLOW
SG-vlan-18	DC-Physical	7807, 161 [snmp], 427 [svrloc], 20000-29999, 5060	UDP	ALLOW
SG-vlan-18	SG-vlan-100	53 [dns]	UDP	ALLOW
SG-vlan-18	Internet	123 [ntp]	UDP	ALLOW
DC-Physical	SG-vlan-18	37826, 58404, 41272, 36006, 40000-49999, 30000-39999, 53207, 32083, 50000-59999, 44669, 5060, 33217	UDP	ALLOW