Arista Professional Services - DANZ Monitoring Fabric (DMF)

DANZ Monitoring Fabric (DMF) is a next-generation network packet broker (NPB) designed for pervasive, organization-wide visibility and security, delivering multi-tenant monitoring-as-a-service. DMF enables IT operators to pervasively monitor all user, device/IOT and application traffic (north-south and east-west) by gaining complete visibility into physical, virtual and container environments. Deep hop-by-hop visibility, predictive analytics and scale-out packet capture — integrated through a single dashboard — enables simplified network performance monitoring (NPM) and SecMon workflows for real-time and historical context, delivering a one-stop visibility solution for on-premise data centers, enterprise campus/branch and 4G/5G mobile networks.

The SOW of a DANZ Monitoring Fabric Design and Deploy Services is constituted of a mandatory "Design & implementation Service" (SVE-DM-DSGN-IMPL), with additional expansion add-ons as required for the Customer's DMF solution (SVE-DM-IMPL, SVE-DM-IMPL, SVE-DM-IMPL-SNC1, SVE-DM-IMPL-SNDL1, SVE-DM-IMPL-SNEL1, SVE-DM-IMPL-AN1, SVE-DM-IMPL-RN1)

1. **Terms of DANZ Monitoring Fabric Fixed Deliverable SOW.**
   - The "**DANZ Monitoring Fabric Fixed Deliverable**" is considered a Deliverable PS (under the terms of the MSA) and this document definition forms the Arista PS Scope of Works (SOW).
   - The Effective date of this SOW is defined as five business days after Arista's acceptance of the Purchase Order (PO) booking of the mandatory "Design & implementation Service" (SVE-DM-DSGN-IMPL)". Five business days are allowed for any additional add-on service offerings (as stated in the DMF package service details) to have completed booking, to be included within the Arista PS project plan. After the Effective date, no more service add-ons or quantity changes will be accepted into this Arista PS engagement, except via a change request.
   - Unless otherwise terminated earlier in accordance with the terms of the Agreement, or at the discretion of Arista PS, the Services described in this SOW end six (6) months after the Effective Date.
   - This SOW may only be terminated for material breach by either party upon thirty (30) days prior written notice. In the event the Customer terminates for Arista's breach, Customer will be entitled to a pro-rated refund of unused pre-paid fees. If Arista terminates for material breach, Customer will not be entitled to a refund.
   - Invoicing will be 60% upon PO booking, with the remaining 40% upon project completion & formal acceptance by the customer.
   - The Arista PS project start date is intended to be no later than eight weeks from the Effective date, subject to the required Hardware and Software to implement the DANZ Monitoring Fabric Solution, having been shipped.
   - The "Design & implementation Service" (SVE-DM-DSGN-IMPL) is mandatory for any Arista PS engagement, which can be enhanced/expanded with multiple additional add-ons, as required:
     - SVE-DM-IMPL
     - SVE-DM-IMPL-SNC1
     - SVE-DM-IMPL-SNDL1
     - SVE-DM-IMPL-SNEL1
     - SVE-DM-IMPL-AN1
     - SVE-DM-IMPL-RN1

- The Services stated in this document will be performed 100% remotely and the customer is expected to provide remote access to enable delivery of these services.
- This is a new build deployment service and migrations of any sort are out of scope.

2. DMF package service details and size/scale.

The following mandatory and additional services (as purchased) are considered in scope for this engagement:
a) Mandatory SVE-DM-DSGN-IMPL - DMF Design & Implementation service for Ctlr HA Pair + 3 switches.
b) Optional SVE-DM-IMPL (QTY:X) – Additional one (1) switch implementation.
c) Optional SVE-DM-IMPL-SNC1 (QTY:X) - Additional four (4) port Service Node implementation.
d) Optional SVE-DM-IMPL-SNDL1 (QTY:X) - Additional sixteen (16) port (10Gb) Service Node implementation.
e) Optional SVE-DM-IMPL-SNEL1 (QTY:X) - Additional sixteen (16) port (25Gb) Service Node implementation:
f) Optional SVE-DM-IMPL-AN1 (QTY:X) - Additional one (1) Analytics Node implementation.
g) Optional SVE-DM-IMPL-RN1 (QTY:X) - Additional one (1) Recorder Node implementation.

Migration Activities are out of scope and are expected to be covered separately via custom scoping.

3. Project Scope & Milestones.

All DANZ Monitoring Fabric Fixed engagements involve Arista Professional Services ("PS") Engineer(s) building the DANZ Monitoring Fabric ("DMF") solution based on the Customer's technical and business requirements and applying DMF OOB best practices. The Services include:

a) **Project Kickoff** - An Arista representative will contact the Customer to schedule the Project Kickoff meeting. During this meeting, the Arista PS will:
- Create a project schedule in agreement with the Customer.
- Designate a single point of contact and backup contact at Arista and the Customer.
- Establish the Start and End Date of remote services.
- Identify dependencies, risks, and issues associated with the successful completion of the project.

b) **Requirement Specification Document** – A detailed requirements gathering, and analysis will be conducted with the appointed project stakeholders (Technical and Business Leads) to develop the Requirements Specification Document for the project. The Arista PS will collect and validate the requirements based on interviews, questionnaires and requirements workshops conducted through a series of conference calls. These sessions will aim to gather requirements related to (but not limited to) the following aspects of the solution.
- Location and number of TAPs or SPANs (mirrored production ports).
- Expected traffic volume and patterns from each TAP/SPAN port.
- Number of tools and the location and type of tools.
- Tool physical connectivity requirements.
- Performance of each tool planned to be used.
- Filter and delivery requirements for each TAP and tool (DMF OOB policies).
- Identify Filter (ports connected to production Network, TAPs and SPANs) and Delivery (ports connected to the tools) interfaces for the policies.
- Traffic filter criteria for the policies.
- Operation strategy and change management process.
- Scalability requirements.
- Redundancy requirements.

Arista PS will share the "Requirement Specification Document" with project stakeholders for sign off before commencing with the design of the DMF Solution.

c) **DMF Design Blueprint** – Arista PS will develop the design based on technical requirements and business goals provided by Customer during the requirement gathering and analysis sessions as well as the DMF features and capabilities. The Arista PS will determine the best approach to achieve the design with the DMF design optimization techniques including but not limited to:
- Overlapping policies and alternative approaches.
  - Filter and Delivery interface choices.
  - Policy priorities.
- VLAN manipulation modes.
- Fabric Topology and policy path optimization.
- Link Aggregation Groups.
- Redundant policies.
- Using Loopback interfaces.

The final Design Blueprint will include following aspects of the solution in the described formats.
- Microsoft excel compatible file that includes the following information:
  - Names of Switches and their roles.
  - Inter-switch connectivity table.
  - List of Tunnel interfaces, if any.
  - Initial Fabric configuration parameters.
  - List of Filter interfaces with associated filter interface groups.
  - List of Delivery interfaces with associated delivery interface groups.
  - IP address groups.
  - DMF Policies with their configuration parameters.
- A PDF file generated from a Microsoft PowerPoint compatible file that includes the following diagrams and information at a high level:
  - Physical Fabric design.
  - Brief description of policy characteristics and associated design techniques.
  - Specific optimization and redundancy techniques used for the design, if any.

d) **DMF Bring-up** – DMF will be brought up and the initial configuration will be completed, consisting of the following tasks:
- Bring-up the DMF (DMF Controllers, Nodes and Switches).
  - Initial configuration of one pair of the DMF Controllers.
  - Initial upgrading & configuration of the DMF OOB switches that are part of the solution.
  - Configuration of SNMP on the DMF if monitoring the Fabric through SNMP application is required.
  - Customizing access privileges to the Fabric including access controller lists, users and AAA services.
  - DMF Configuration for remote syslog servers.
  - Configuration of NTP servers (DMF acting as a client) and the time zone.
- Perform Fabric Health Check – a full checklist will be shared after the kick-off meeting with the Customer. The following is a summary of the checklist:
  - Address error and warnings on the Fabric.
  - Interface error checks.
  - System Log Analysis to verify the health of the Fabric.
  - Validate traffic/storage received by DMF Analytics/Recorder Node(s).
  - Validate reports are available and accessible (as required).

e) **DMF Solution Implementation** – The Arista PS will implement a DMF solution in accordance with the Design Blueprint:
- Configure all filter and Delivery interfaces.
- Configure filter and Delivery interface groups.
- Configure IP address groups.
- Configure Tunnel interfaces, if any.
- Configure the DMF policies.

4. Project Deliverables.

For every project deliverable completed, a "Service Delivery Notice" will be provided, along with supporting evidence, if required:

a) **Project kick off meeting -** Kick off meeting completed.
b) **Requirement Specification Document -** Requirement Specification Document delivered to Customer.
c) **DMF Design Blueprint -** Design Blueprint document delivered to Customer.
d) **DMF Bring-up -** Fabric Bring-up and Health Check completed.
e) **DMF Solution Implementation -** Solution implemented in accordance with the Blueprint document.

5. DMF Services Exclusions.

The following services are specifically excluded from the scope of this project:

- Configuration of any other networking equipment that is not part of the DMF. The Arista PS may provide guidance on 3rd party equipment; however Arista will not be responsible. This does not preclude the Arista PS from assisting with troubleshooting, using the fabric, any 3rd party devices attached to the fabric or leveraging the services of the fabric.
- Creating and executing User Acceptance Test Plans & Design Validation testing.
- Performing Customer specific security analysis on the Solution.
- All work related to Data Center facilities including, but not limited to, physical equipment installation (racking), power and cooling designs and all cabling work.
- Validation of the operation of internal applications.
- Any additional software development/integration work on the tools and automation platforms that has not already been agreed upon.
- Relocation of existing equipment.
- Re-configuration of the DMF after (out of scope) User Acceptance testing is completed.
- Capturing the activities in the form of videotaping. Capturing troubleshooting and configuration steps is allowed through logging console and SSH sessions.
- All out of business hours working is excluded.

6. Arista PS Engagement Responsibilities.

a) **Project communications** - A project manager may be allocated to the project by Arista, otherwise communication will be via the Arista assigned engineer. The Customer will provide a single point of contact for all issues relating to the communications and performance by each party of its obligations under this SOW. The project manager/engineer shall be available during normal business hours excluding any vacation time planned and identified as such. If a project manager is not assigned, the PS engineer shall be the single point of contact.
b) **Project meetings** - The project manager will set up meetings to keep a regular cadence of communications with the Customer for matters pertaining to the project. During these meetings the following items will be covered at a minimum:
- Project initiation meeting.

- o Introduce the Arista PS.
  - o Review project scope and timeframes.
  - o Key contact information at Arista, Customer and partner where applicable.
  - o Expectations for onsite presence based on Services purchased.
  - o Determine dates for regular cadence meetings.
- Regular cadence meetings:
  - o Review Service performance.
  - o Keep an action register log to record, assign, track and drive to resolution any project related issues.
c) **Hours of working** - Arista PS Services will be performed during regular business hours Monday - Friday, 8:00am – 5:00pm local time (eight (8) hours per day), excluding weekends, Company's/Customer's/statutory holidays:

7. **Customer Engagement Responsibilities.**
   a) **Non-Arista -** Engage third party vendors as needed to troubleshoot, coordinate, configure, traffic route or validate feature configuration and capabilities, as required for the performance of the Services.
   b) **Resourcing/Access -** Onboard the Arista PS, assign appropriate resources and manage appropriately skilled third party or partner resources. The customer shall provide all the required remote access (console/ssh/cli), as required for the performance of the Services.
   c) **Information -** Provide existing network designs & configurations, detailing L1, L2 and L3 connectivity for all devices that will be connected to and/or replaced by the Arista network at the time of User Acceptance Testing, such as:
      - o Physical connectivity types, speeds, media, distances, cabling etc.
      - o L2 information such as VLAN ranges, overlaps, reservations, limitations etc.
      - o L3 information such as IP ranges, overlaps, reservations, routing, gateways etc.
      - o For endpoint systems identify media, speed, link aggregation model, embedded switches/routers etc.
      - o HLD, LLD, network flows, etc.
   d) **Changes and testing -** Collaborate with the Arista PS to develop and implement all change plans, providing all customer & third-party resourcing as required.

8. **Project Acceptance.**
   a. **Acceptance Criteria:**
      - o All items will be delivered electronically, tested and validated.
      - o Each Milestone as described in the project plan will be completed in sequence
      - o A Milestone must be accepted as complete before commencing work on further milestones.
      - o A Completion Certification in the form of a "Service Delivery Notice", will be issued for each Milestone completed.
   b. **Acceptance Procedure:**
      - o Upon completion of any Services hereunder for which Arista has provided Deliverables, Arista shall promptly notify Customer via email or in writing of the delivery thereof ("Service Delivery Notice"). Customer shall have the right to inspect all Deliverables within five (5) Business Days

after receipt of the Service Delivery Notice, and the Deliverables shall be conclusively deemed accepted by Customer unless a notice of rejection has been sent by Customer to Arista within such five (5) Business Day period.

- o Customer shall only have the right to reject a Deliverable if it reasonably believes that the Deliverable (a) does not conform to the applicable specifications set forth in this SOW; (b) would not be reasonably likely to satisfy the applicable Acceptance Criteria set forth in this SOW; or (c) is defective in material or workmanship.
- o Customer's sole remedy shall be, at Company's discretion (a) for Company to correct the deviation within a reasonable time following Customer's written rejection notice, or (b) if Company is unable to correct the deviation, then, upon Customer's request, Company shall refund any payments that Customer has made specifically for such non-compliant Deliverables..

9. Project Change Process.

The Customer may request a change, in writing, to the project. The Process Change Request format can be provided upon request. The change will be evaluated by the Company and any project impact will be identified.

A project change request should contain:

- A description of the change including:
    - The reason for the change
    - What changes in project scope and/or deliverables will be required to achieve the objectives
    - The impact if the change is not done
- The requester

As a result of the evaluation Arista shall take the following actions:

- Any resulting change to the project timeline will be documented and such documentation will be provided to the Customer.
- Any change in resourcing will be estimated in days and notified to the Customer.
- Additional cost due to the change will be charged at ((standard day rate) x (estimated days)).
- Any changes in scope and/or risks will be documented and such documentation will be provided to the Customer.

If all changes are mutually agreed by the Company and the Customer the changes will be implemented as described. The parties shall have five (5) business days from the date Arista provides the estimates and documentation to agree on the changes in order to adopt the changes as part of this SOW.

If no agreement can be reached with respect to the change request the SOW will remain unchanged.

10. Project Delays.

- **Planned delays** within Services execution, e.g. known change freeze dates, are considered a normal component of project planning and will be catered for, if scheduled & agreed at the start of the project or within a minimum of two weeks' notice. We can then reallocate all resources until such time as the project is scheduled to restart, unless the restart date is unknown, upon which restart will be considered a new engagement request. However, as stated before, the service will still terminate within six (6) months of the effective date, unless an exception is approved by Arista PS and may involve a change request.

- **Unplanned delays** within Services execution, where no scheduled activities have been possible over a two week period, due to customer unplanned disengagement, will result in the suspension of the project and reallocation of all resources. Any re-engagement will be considered a new engagement request. However, as stated before, the service will still terminate within six (6) months of the effective date, unless an exception is approved by Arista PS and may involve a change request.