Solution Comparison: Browsium Proton vs. Microsoft Enterprise Site Discovery Toolkit

Today's business applications no longer reside only on the desktop. Browser-based web applications have eclipsed desktop applications in both number and importance. While Windows desktop application inventory and management tools are mature and important in daily enterprise application management, they lack the ability to understand browser-based application environments. With this paradigm shift to browser-based applications, IT staff are in urgent need of solutions to inventory and manage these web applications and the browsers that render them.

Why Browser-based applications need a specialized inventory and analytics solution

Brower-based applications operate in a very different environment than desktop-based applications. The browser environment is designed to deliver a virtually endless number of application experiences using a combination of programing languages, APIs, and extensibility interfaces. This requires the browser to be more like an operating system than an application. Resources to support these applications can come from any combination of local or remote systems. There are more vulnerabilities with browser-based applications due, in part, to the distributed resources they call upon and the nature of how those resources consume data from unknown or potentially untrusted sources.

Because browser-based applications have a vastly different design, they require a more functional solution to deliver accurate and useful application inventory and analytic data. Traditional desktop management tools do not deliver this required functionality. A robust enterprise management solution is needed with the ability to track applications that run solely in a browser, report the dependencies between web applications (including where independent applications are connected at run time), as well as identify component requirement and compatibility issues. Without this type of solution, an organization is left with a blind spot vulnerable to security risks, blocked or stalled migrations, compatibility issues, and under/over-utilized software licenses.

Simply put, to address these needs, enterprise IT requires a solution that provides deep insights into complex browser-based application environments across the enterprise. Browsium Proton is an end-to-end web application inventory and analytics solution, designed to provide organizations with the operational insights needed to meet the challenge of managing a modern enterprise. Proton delivers this essential, comprehensive, enterprise-wide management view of browser-based environments. Microsoft Enterprise Site Discovery Toolkit provides a very different approach to this challenge, focusing on a point in time view, geared towards browser migration projects. It provides only building blocks which can be crafted into an inventory and analytics solution with enough time, resources, and expertise. This document will overview and compare both approaches.

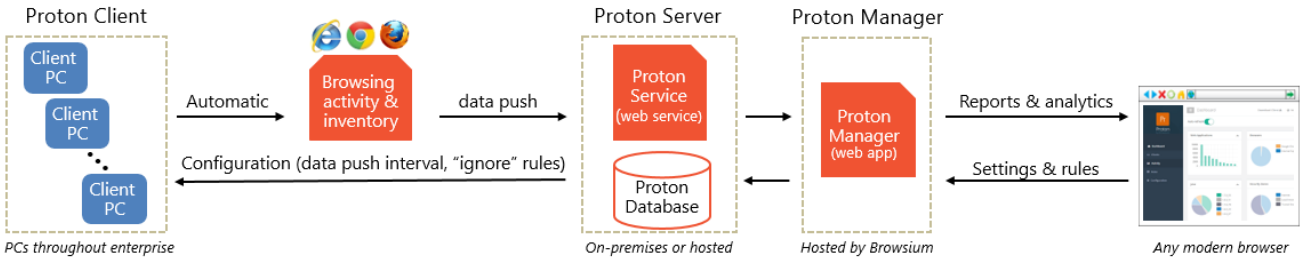
Browsium Proton is an easy-to-use web application inventory and analytics solution for today's modern enterprise. It goes beyond simply providing raw usage data, to deliver comprehensive, up-to-date inventory and analytics presented in easy-to-understand tables and charts. With this granular data, IT will discover the critical correlations between web applications, browsers, and add-ons, and in turn, provide more effective IT services and make better IT decisions. Proton gives IT a clear and accurate view inside the browser 'black box'.

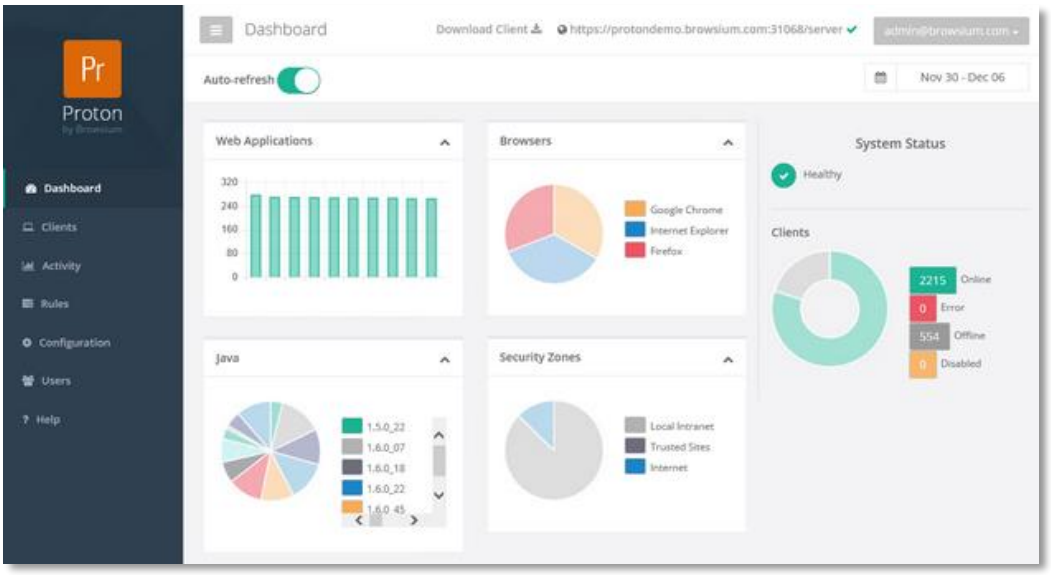
Specifically, Proton delivers robust end-point discovery for enterprise IT staff who need to know what line-of-business web applications users are accessing, how often they use those applications, how many active users access each application, usage trends over time, what browser is being used to access which application, and what browser add-ons and extensions are used by those sites. In addition, Proton provides security information about those add-ons and extensions. Proton works with Internet Explorer, Chrome, and Firefox, delivering a complete picture of both IT-managed and unmanaged browser usage in the enterprise.

Proton enables enterprise IT to function more productively and improve services in the following scenarios:

- **Migrating Browsers and Applications** – Proton inventories all web applications, browsers, and add-ons, and presents it in a graphical dashboard. Granular data, with line-item detail, helps identify and unblock web application compatibility issues.
- **Maintaining and Optimizing Client Systems** – With Proton, IT teams make better business decisions because they have a near real-time view of their web application environment, ensuring mission critical web applications run smoothly during frequent OS, browser, and Java patch cycles.
- **Proactively Heading Off Security Risks** – Proton reduces attack surfaces by enabling IT to correlate and manage web applications, browsers, and add-ons. It identifies unused applications and browser add-ons, such as older or unused versions of Java and ActiveX controls, enabling IT to reduce security exposure without guessing or impacting business productivity.
- **Improving Employee Productivity** – Proton provides business management with the knowledge and insights to drive productive behavior and reduce web distractions among employees. It helps identify and correct hotspots before they affect the company's bottom line.
- **Cloud Migration** – Proton's comprehensive web application inventory can be used to identify workloads already running in the cloud outside of IT's control – a concept known as shadow IT. In addition, Proton helps IT identify and prioritize applications ready for cloud migration – accelerating efforts to comply with cloud migration mandates.

The following diagram and screenshot detail the Proton solution architecture and user interface.





Microsoft Enterprise Site Discovery Toolkit (ESDT) provides a way for IT Pros to prepare for a migration to IE11 and understand what their users are doing today with Internet Explorer 8, 9, 10, and 11 and discover undocumented web applications. This toolkit enables the collection of information from Internet Explorer about sites visited by enterprise users. The sites included in this collection can be scoped by zone or domain. This feature can also be configured to provide additional information on how sites are designed and used by Internet Explorer. Once enabled, this data will be collected on all sites visited by Internet Explorer except while browsing in an InPrivate browsing session or when configured to limit collection to certain zones or domains.

With this toolkit, data is collected from Internet Explorer and locally stored at the client endpoint. This data collection approach may suffice in a lab or small company where each system can be accessed to upload data to a central location, or gathered periodically by a centrally managed inventory process (e.g. via System Center Configuration Manager). However, in an enterprise with tens of thousands of PCs this approach can quickly become unmanageable. Once the endpoint data collection issue is addressed, IT has an array of individual data files which then must be parsed, indexed, and categorized. Once that is done, IT must to build a custom reporting solution to query and view the data.

The following diagram provides an overview of the ESDT architecture. The toolkit has no user interface.

The following chart provides a more detailed comparison of Browsium Proton and Microsoft Enterprise Site Discovery Toolkit (ESDT).

Comparison of Browsium Proton and Microsoft Enterprise Site Discovery Toolkit (ESDT)

Capability	Description/Benefit	Proton	ESDT
Reports web-based applications used throughout organization	Both Proton and ESDT provide a list of web-based applications and usage data collected as a precursor to identifying the scope of a web browser or cloud migration. This data provides a way to rationalize which applications get attention first, based on traffic volume.	✓	✓
Automatic data collection and reporting	Proton automatically collects and aggregates customized and filtered browser usage data from around the organization on an ongoing basis. It provides answers and insights to IT management questions via a central database and reporting interface. Proton also eliminates the need to manually parse, index, and categorize an array of log files and build a custom reporting solution to view and query the data. Proton serves as a regulatory compliance and security reporting tool by validating effective security setting and displaying real usage data. This information can be used to validate end point configurations and audit those configurations for end user attack vectors and compliance with regulations such as HIPAA, SOX, and others. ESDT does not provide automatic data collection and reporting.	✓	
User interface and graphic results display	Proton's easy to use interface eases configuration and gives clear granular reports and analytics to enable quality IT management decisions.	✓	
Supports multi-browser environments (Internet Explorer, Chrome, and Firefox)	While an enterprise may officially support and centrally manage Internet Explorer, they often either provide Chrome and Firefox, or their users are installing and using them on their own. Data must be collected on all browsers in use on end user PCs to get a complete picture of web application usage in the organization. Knowing a web application works in another browser, and having an actual count of users accessing that application with that browser, is valuable when planning a browser migration. This data gives IT information about browser options to support that application, and drives the understanding of the size, scale, and impact of a browser migration. Proton supports Internet Explorer, Chrome, and Firefox. ESDT only supports Internet Explorer.	✓	

Capability	Description/Benefit	Proton	ESDT
On-going data collection	Proton continually collects usage data from around the organization. This helps IT make well informed decisions to streamline application inventory and version management as usage behaviors evolve. ESDT data must be enabled at endpoints and collected manually, then imported into a reporting system, or a completely custom solution must be built to automate the process.	✓	
Central database and reporting interface	Proton makes data collection, management, and analysis consistent and easy in very large enterprises with a central database and reporting interface. This results in better global IT decisions. ESDT only collects data on a system by system basis, with no centralized database repository for all collected data or any type of reporting interface.	✓	
Simple server installation	Proton server components can be installed in minutes with automatic configuration of IIS and SQL Server. Proton's server architecture is flexible for running on-premises or in the cloud. ESDT has no server components, they must be custom-built.	✓	
Hosted or on-premises reporting web application	Proton enables IT admins to view reports and analytics via a powerful web application hosted in the cloud for rapid updating and easy access. Proton's management web application can be run on-premises if desired. ESDT has no web application for viewing reports. A solution must be custom built.	✓	
Java version requested by web page	Both Proton and ESDT report which version of Java was called for by a given web page. This provides insight into usage patterns. Proton reports are user friendly, translating GUID values into human recognizable Java version values and labels. ESDT collects GUID data in the standalone system endpoint, which must then be manually converted or custom scripting must be written to bulk convert gathered ESDT data.	✓	✓

Capability	Description/Benefit	Proton	ESDT
Extension management – Java and beyond	Java – Proton reports Java version usage by PC and application, as well as the inventory of all versions of Java on each system – including which versions are enabled and disabled. This provides data to rationalize Java version usage by application and up-level the Java version used in an organization. This data can also help determine if specific versions of Java can be eliminated or sandboxed to the intranet. This results in improved security and compatibility. Beyond – Proton provides an inventory of add-ons installed, as well as a view of add-ons enabled and used by which sites. This is important prior to a browser migration to rationalize usage of add-ons and eliminate unused ones to help reduce the IT footprint and eliminate unnecessary software wherever possible. This also helps reduce IT expenses for building, supporting, and patching unneeded software and reduces the surface area of attack, increasing security. ESDT does not provide system inventory of Java or any other add-ons. It only highlights which components were actively used, and requires a separate process to correlate inventory against usage.	✓	
Security	Proton delivers targeted and accurate end point security data on an on-going basis in the following areas: Lockdown Configurations – A useful reporting tool for IT security managers providing information to ensure lockdown configurations are properly set up, along with reports to prove unwanted sites are unable to bypass these configurations. Reduce Surface Area for Attack – Provides critical data detail to enable an organization to deliver required components to a system. This reduces unneeded components and reduces surface area for attack. Validate Compliance – Can be used to validate end point configurations and audit those configurations for end user attack vectors and compliance with regulations. ESDT has no such capabilities without building a custom reporting interface.	✓	
Zone or Domain data collection	Both Proton and ESDT report web application usage by zone or domain to provide insight into usage patterns. Proton also provides a view of data by IP address or range, enabling organizations to view data access from multiple angles.	✓	✓

Capability	Description/Benefit	Proton	ESDT
Granular data collection	Proton reports web application usage data by user/machine/organizational unit. This level of detail gives IT insights into what applications they have and how they are used by various departments. This shows IT which applications are most critical per department, not just broadly across the organization. It also identifies line of business relationships in order to effectively manage the migration process. Longer term, Proton data provides critical details to enable an organization to deliver required components to a system based on a true understanding of the user needs given their role and application access profile. This reduces unneeded components, reduces surface area for attack, and ensures proper system provisioning. ESDT was designed to collect data from the logged in, active user. It does not provide capabilities to view data at an organizational or departmental level, unless a custom solution is built.	✓	